Biological Assessment
of
Threatened, Endangered, and Candidate Wildlife Species
for
Access Management on the Fishlake National Forest

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I. Introduction

This Biological Assessment (BA) analyzes the potential effects of the proposed Fishlake National Forest Access Management Project on species listed as threatened or endangered under the Endangered Species Act (ESA), and to determine whether the likely effects on these species necessitates a formal consultation or conference with the U.S. Fish and Wildlife Service.

The Federally listed species that may occur or have suitable habitat on the Fishlake National Forest are shown in Table 1. There is no critical habitat for any listed species designated on the Fishlake National Forest.

Table 1. Species listed under the Endangered Species Act (ESA) that occur or have suitable habitat on the Fishlake National Forest.

Species (Status[1])	**Habitat suitability or known occurrences of listed species in or near the project area.**	**Species to be analyzed further? (Yes or No)***
Bald Eagle (T) *Haliaeetus leucocephalus*	Bald eagles use portions of the Forest during late fall and early winter months.	**Yes**
Utah Prairie Dog (T) *Cynomys parvidens*	Suitable habitat only occurs on the Beaver, Richfield and Loa Ranger Districts.	**Yes**
Western Yellow-billed Cuckoo (C)	Limited suitable riparian habitat exists on the Forest below 7,000 feet in elevation.	**Yes**
Mexican Spotted Owl (T) *Strix occidentalis lucida*	Suitable habitat has only been identified by the FWS on the Loa Ranger District. None of the alternative will affect habitat that supports the owl.	**Yes**

***Yes** – The proposed project's potential effects on these species will be further analyzed in this document.
***No** – No further analysis is necessary, and a determination of "**No Effect**" is rendered.

[1] Federal Status Codes:
- E Endangered - Taxa formally listed as endangered.
- T Threatened - Taxa formally listed as threatened.
- C Candidate- Taxa formally listed as candidate
- P Proposed E or T - Taxa proposed to be formally listed as endangered or threatened.

II. Consultation to Date

The U.S. Fish and Wildlife Service (FWS) were contacted July 24, 2006 for a list of threatened and endangered species which may occur on each of the Fishlake National Forest's four ranger districts. The FWS replied on with the following list.

Common Name	Ranger Districts[2]
Bald Eagle (Threatened)	D1, D2, D3, D4
Utah Prairie Dog (Threatened)	D2, D3, D4
Mexican Spotted Owl (Threatened)	D2
Western Yellow-billed Cuckoo (Candidate)	D1, D2, D3, D4

[1] D1 = Fillmore Ranger District
D2 = Loa Ranger District
D3 = Beaver Ranger District
D4 = Richfield Ranger District

The FWS stated that for those species that do not occur or have suitable habitat on a specific ranger district, a programmatic "No Effect" determination is made.

III. Current Management Direction

Management direction specified by the Fishlake National Forest Land and Resource Management Plan is to manage habitat for Federally listed species and to maintain or enhance their listing status under the ESA by direct habitat improvement and agency cooperation. Objectives include managing habitats for the recovery of species listed under the Endangered Species Act (USFS 1986).

IV. Description of the Proposed Project

Existing Condition

(The tables referred to in this section are numbered according to those found in the EIS that has been prepared for this project)

There has been rapid growth in off-highway vehicle (OHV) use that was not anticipated when the 1986 Fishlake Forest Plan was written. Combined use on the Paiute and Great Western Trail systems has increased 205 percent since 1995 (Reid 2005). OHV registrations in Utah increased 212 percent from 1998 to 2004 (Hayes 2005). New retail sales of OHVs increased 163 percent between 1995 and 2001 (Motorcycle Industry Council 2002). Most of these vehicles are used on public lands (Fisher et. al. 2001, Motorcycle Industry Council 2001). The existing travel plan allows seasonal or yearlong motorized cross-country travel on over 62 percent of the Forest. This is not desirable or

sustainable, especially given the existing numbers of users and expected growth. This is also inconsistent with the travel regulations that were finalized on November 2, 2005.

The enforcement method used for the existing travel plan relies on "open unless signed or mapped closed", which is complicated to interpret and difficult to administer. In addition, the lack of consistent travel policies between the Fishlake National Forest and other nearby forests and land management agencies is confusing for the public and inhibits cooperative law enforcement and successful prosecution of offenders.

All of the factors described above have contributed to the current situation where some motorized travel is occurring in areas and on routes where motorized use is prohibited. In some open areas, networks of user-developed routes continue to appear that are creating user conflicts and resource impacts. Problems do not occur equally throughout the analysis area. Some of this use has occurred in riparian areas and on highly erodible slopes. In other areas, use is very light and little or no effects from wheeled motorized cross-country travel are evident. Types of impacts include the introduction and spread of invasive plants, displacement and compaction of soils, impacts to rare plants, rutting of wetlands, disturbance of wildlife and livestock, damage to cultural resources, and impacts to water quality, riparian and fisheries habitats. The majority of motorized impacts are occurring during hunting season and spring antler shed gathering, in play areas next to communities, and around popular dispersed camping areas.

Desired Condition

The Fishlake National Forest goal is to manage the use of OHVs in partnership with other federal and State land management agencies, local governments and communities and interest groups to protect public lands and resources while providing opportunities for the safe use and enjoyment of OHVs on designated roads, trails, and open use areas that comply with the Forest Plan.

To meet Forest Plan desired conditions, the Forest Service, cooperating agencies, and the public need greater certainty about which roads and trails are part of the managed system of motorized and non-motorized routes. Greater certainty is needed to

- ✯ improve public understanding and adherence to travel rules, thus reducing the development of user-created routes,
- ✯ reduce motorized conflicts with natural and cultural resources (Forest Plan pages IV-3 to IV-6),
- ✯ coordinate public access across different land management agencies,
- ✯ improve motorized and non-motorized recreation opportunities on the Fishlake National Forest in cooperation with our partners (Forest Plan page IV-3),
- ✯ prioritize and budget for road and trail maintenance, including the need to identify and remedy public safety hazards (Forest Plan page IV-5).

The desired condition is to provide a range of motorized recreation opportunities, recognizing their legitimate use while minimizing the current or anticipated effects on wildlife and their habitat, soil, native vegetation, water, fish and other users (Forest Plan pages IV-2 to IV-6). There will be designated routes, both roads and trails that permit motorized use. Unauthorized routes will not increase because adequate recreational activity is available in a well-planned system of trails and roads and because illegal routes are promptly obliterated if created. In some locations, there will be open use areas, such

as in Flat Canyon and the Sawdust Pits west of Richfield or the Velvet Ridges east of Loa. Any cross-country travel authorized for administrative use, contracts and permits would weigh the need to meet multiple-use purposes with having minimum resource impacts as outlined in the Forest Plan.

Purpose of and Need for Action

In order to comply with travel management regulations (36 CFR parts 212, 251, and 261, which incorporate Executive Orders 11644 and 11989) and Forest Plan direction, the Forest Supervisor has determined that there is a need to improve management and enforcement of the motorized travel policy on the forest. Specifically the purpose of and need for the proposed action is to

1. address the immediate need to better manage motorized cross-country travel,
2. create an implementable user friendly motorized travel plan that is simple to understand and is as consistent (seamless) as possible with adjacent public lands,
3. create a travel plan that is inherently easy to enforce to the fullest practical extent,
4. better accommodate current motorized use while addressing concerns related to future growth,
5. reduce the potential for motorized conflicts and impacts to other resource uses and values, and
6. increase user certainty about which roads and trails are part of the managed system of motorized and non-motorized routes.

Alternative 5, Final Preferred Alternative

The Final Preferred Alternative blends elements from each of the other action alternatives in response to route and area specific concerns identified by the public and through internal reviews. This alternative also accounts for the additional route inventory incorporated in 2005 and 2006 and represents the culmination of applying the criteria described in the Development of Alternatives. Alternative 5 fixes errors in Alternative 2, 3, and 4 that were discovered after release of the DEIS, including those identified by the public. There are substantial differences in content between Alternative 5 and the other action alternatives that are not readily evident in the mileage comparisons. This is due in part to having different, but offsetting additions and deletions to motorized access in each alternative. Careful evaluation and comparison between the alternatives reveals the imprint from the route-specific public comments that the forest received. Implementation requirements are tracked in the fishlake_travel_plan_changes.mdb Microsoft Access database, which is located in the project file.

Alternative 5 adds 580 miles of unauthorized routes to and would remove 73 miles of authorized routes from the forest's existing motorized system. About 635 miles of unauthorized motorized routes would be obliterated and 23 miles converted to non-motorized trail. This action would result in a system of roughly 2,181 miles of road and 639 miles of trail for a combined total of 2,820 miles of motorized routes. Of the latter total, 2,742 of these miles would be open to the public. The amount of seasonally restricted routes would increase from 329 miles to 424 miles. The ending date for the seasonal closure period that starts on January 1st would be lengthened from March 31 to

April 15th. The existing configuration of the Paiute and Great Western Trail systems would be retained. Motorized travel off designated routes would be prohibited except for open use areas, over-snow vehicles, or as specified for access to dispersed camping, firewood gathering, emergency fire suppression, search and rescue, law enforcement, military operations, and Forest Service administrative use. Some changes in area restrictions for winter travel by over-snow vehicles are proposed to protect critical mule deer winter ranges. The preferred alternative designates 690 acres in two open use areas west of Richfield, UT and 189 acres at Velvet Ridges above Torrey, UT where motorized cross-country travel would be permitted. Like Alternative 3, Alternative 5 proposes changes to the open use area boundary at Velvet Ridges to reduce potential for impacting sensitive plants and to make the boundary more manageable. Contrary to Alternatives 2 and 3, the most northern open use area on the Fillmore district would be dropped in Alternative 5. The open use areas remaining are open to motorized cross-country travel in the current travel plan.

Table 2-24 provides a summary of the area restrictions associated with Alternative 5. Detailed maps are included on the CD-ROM that accompanies the FEIS and can be reviewed interactively on the map server link from the project web page

Table 2-24. Alternative 5 - Area summary of proposed motorized travel plan restrictions on the Fishlake National Forest (total of 1,454,380 acres for [2] and [4]).

District	Seasonal Winter Closure[1]	Travel on Designated Routes Only[2]	All Winter Closure[3]	Open Use Area[4]
Fillmore	23,308 acres	470,697 acres	68,111acres	690 acres
Beaver	20,987 acres	297,444 acres	48,038 acres	0 acres
Richfield	30,264 acres	422,387 acres	22,436 acres	0 acres
Loa	61,911 acres	262,974 acres	18,882 acres	189 acres
FOREST TOTAL	136,470 acres	1,453,501 acres	157,467 acres	879 acres

[1] this area designation is the same as the "A" area restriction on the current travel plan, but would only appear on the winter motor vehicle use map in Alternative 5.
[2] this is the same as the "B" areas on the current travel plan, and will not need to be shown on the summer motor vehicle use map because except for open use areas, the entire forest will be restricted to designated routes only.
[3] this is similar to the "C" restrictions on the current travel plan, but would only appear on the winter motor vehicle use map.
[4] this is the same as the unrestricted areas on the current travel plan, except that it is officially designated in the action alternatives and would be shown on the motor vehicle use map.

Table 2-25 shows the mileages for motorized route designations that would result from implementing Alternative 5. The data are displayed by ranger district.

Table 2-25. Alternative 5 - Motorized route mileage summary (grand total of all motorized designations = 2,820.2 miles).

District	Open Yearlong	Open Seasonally	Street Legal Vehicles Only	Administrative Use Only	Undesignated Open	Undesignated Closed
Fillmore	710.5	17.6	25.2	0.5	0	0
Beaver	371.1	29.5	106.8	38.7	0	0
Richfield	651.8	232.8	71.8	16.6	0	0
Loa	321.1	143.6	59.9	22.6	0	0
FOREST TOTAL	2,054.5	423.6	263.7	78.4	0	0

Table 2-26 shows the types of changes to use designations that would create the mileages shown in Table 2-25. Tables that show detailed route designation and status changes for Alternatives 5 are located in Appendix E.

Table 2-26. Alternative 5 - Road and trail miles for the Fishlake National Forest where use designations would be changed.

FROM	TO	Roads	Trails
Open Yearlong	**Open Seasonally**	144.4	17.7
	Street Legal Only	35.9	0
	Administrative Use Only	8.2	0
	Non-motorized	7.6	11.2
	Obliterated	48.3	7.7
Open Seasonally	**Open Yearlong**	54.3	6.8
	Street Legal Only	0	0
	Administrative Use Only	0.8	0.6
	Non-motorized	0.2	0.2
	Obliterated	54.8	63.2
Street Legal Only	**Open Yearlong**	12.3	0
	Open Seasonally	0.4	0
	Administrative Use Only	1.1	0
	Non-motorized	0.3	0
	Obliterated	0	0

Table 2-26. Alternative 5 - Road and trail miles for the Fishlake National Forest where use designations would be changed.

FROM	TO	Roads	Trails
Administrative Use Only	Open Yearlong	0	0
	Open Seasonally	0	0
	Street Legal Only	0	0
	Non-motorized	0	0
	Obliterated	1.4	0
Undesignated Open	Open Yearlong	147.2	111.6
	Open Seasonally	43.3	38.9
	Street Legal Only	7.7	0
	Non-motorized	2.4	11.5
	Obliterated	134.4	250.6
Undesignated Closed	Open Yearlong	74.9	43.4
	Open Seasonally	8.2	0
	Street Legal Only	8.9	0
	Non-motorized	5.4	7.3
	Obliterated	39.6	108.1
Non-motorized	Open Yearlong	0	26.1
	Open Seasonally	0	5.2
	Street Legal Only	0	0
	Administrative Use Only	0	3.0
	Obliterated	0	29.8

Table 2-27 displays the route classification changes associated with Alternative 3 for the forest. The data are displayed by route type.

Table 2-27. Alternative 5 - Road and trail miles for the Fishlake National Forest where route type authorization would be changed.

FROM	TO			
	Forest Road	Forest Motorized Trail	Forest Non-motorized Trail	Obliterate
Forest Road		41.5	11.8	63.3
Forest Motorized Trail	1.6		11.2	9.4
Forest Non-motorized Trail	0	27.6		8.2
Unauthorized Road	322.3	12.8	4.2	215.2
Unauthorized Motorized Trail	2.6	242.3	19.0	420.2
Unauthorized Non-motorized Trail	0.1	6.5	99.8	21.6

Table 2-28 breaks out the individual and combined changes in use designation and authorization that are proposed to the existing travel plan for Alternative 5. Road and trail mileages are presented for the forest. Note that most of the existing route designations and classifications are not changing from current conditions.

Table 2-28. Alternative 5 - Forest route mileage summary of proposed use designation and authorization changes.

Route Type	Change in Designation Only	Change in Authorization Only	Change in Designation and Authorization	No Changes
Forest Roads*	273.4	39.5	77.1	1,581.5
Forest Motorized Trails	42.9	0	11.0	276.4
Forest Non-motorized Trails	27.6	0	8.2	856.1
Unauthorized Roads	215.5	39.5	299.4	0
Unauthorized Motorized Trails	422.1	26.7	235.3	0
Unauthorized Non-motorized Trails	21.6	99.8	6.7	0
Forest Totals	**1,003.1**	**205.5**	**637.7**	**2,714.0**

* State, Federal, and County roads located on forest are added for completeness even though they are not Forest Roads.

Table 2-29 shows that number of new barriers that would be constructed in Alternative 5. A map showing the location of these barriers is included on the CD-ROM maps and on the interactive map server linked to the project web page.

Table 2-29. Alternative 5 - Number of new travel barriers by use restriction and type.

Use Restriction	Closure Type	Number
Closure to All Motorized Use	Barrier	175
Closure to Motorized Vehicles > 50 inches in width	Barrier	3
Seasonal Closure to All Motorized Use	Gate	20
Administrative Use Only	Gate	21

V. Existing Environment

SPECIES ACCOUNT, LIFE HISTORY AND HABITAT STATUS

(Tables discussed in this section are labeled as they are found in the EIS)

The paper "Life History Trend Analysis of Endangered, Threatened, Candidate, Sensitive and Management Indicator Species of the Fishlake National Forest" (Rodriguez 2005, version 4.1) is a comprehensive description of life histories and habitat requirements for species that occur or have habitat on the Fishlake National Forest. This document also

provides estimates on population trends for management indicator species, and addressed the likely persistence of these species at the Forest level. Principle habitats described in this paper were used to assess the threatened and endangered species habitat conditions for Fishlake Access Management project. The following review of habitat requirements and reference conditions are a brief synthesis of information contained in this document, Rodriguez (2005, version 4.1), and is hereby incorporated by reference.

Bald Eagle

For a detailed description of habitat, reproduction and food requirements, see Rodriguez (2005, version 4.1).

Reference Condition: The Bald Eagle was listed as a threatened species in 1978 and is managed under the Northern States Bald Eagle Recovery Plan. Bald Eagles range across North America, breeding from just south of the arctic tundra to the southern United States and Baja, California. These eagles generally move south to open water during winter.

Bald eagles occur on the Fishlake National Forest during late fall and winter months. Bald eagles forage and roost near open water bodies across the forest. They roost communally and have perennially used the same roost trees on the Forest. Once water bodies freeze moving into winter, eagles move down in elevation, primarily off the Forest, to forage. There are no known bald eagle nest sites on the Fishlake National Forest, although a nesting pair has been documented off the Forest near the town of Teasdale.

Existing Condition and Method of Analysis: Bald Eagles have been documented using National Forest System administered lands (NFS) during late fall, and early winter and spring on all Ranger Districts but no winter concentration areas (communal roost areas) have been identified by the UDWR or Forest Service. There are approximately 142,540 acres of potentially suitable habitat on the Fishlake National Forest comprised of areas around lakes, ponds, and reservoirs. The road density averages 2.5 roads per square mile within this habitat with 63% designated as open to cross-country travel (Table 4).

Road density and the amount of unrestricted travel will be analyzed around water bodies comprising potential suitable habitat for Bald Eagles.

Table 4. Shown is the amount of Bald Eagle habitat on the Fishlake Forest by Ranger District and Geographic Area (GA) with the accompanying miles of motorized routes and resultant road density. Also shown is the current proportion of these acres designated "unrestricted", where cross-country travel is allowed.

GA Name	District	Acres	Motorized miles	Road density (miles/mile^2)	Unrestricted Travel (%)
Canyon Range	Fillmore	1,982	6.1	2.0	93
Clear Creek	Fillmore	5,181	26.7	3.3	92
East Pahvant	Fillmore	6,729	35.8	3.4	100
West Pahvant	Fillmore	5,895	28.4	3.1	57

District Total:		**19,787**	**97.1**	**3.1**	**84**
Fishlake Basin	Loa	10,990	33.6	2.0	48
Fish Lake Hightop	Loa	6,681	15.1	1.4	17
Gooseberry/Lost Creek	Loa	312	1.7	3.5	71
Last Chance/Geyser Peak	Loa	7,653	24.0	2.0	44
Mytoge Mtn/Tidwell Slopes	Loa	11,648	47.0	2.6	81
Old Woman Plateau	Loa	2,643	7.6	1.8	100
Thousand Lake	Loa	4,168	11.1	1.7	6
District Total:		**44,094**	**140**	**2.0**	**51**
Beaver Foothills	Beaver	3,054	7.5	1.6	92
Beaver River Basin	Beaver	9,496	52.8	3.6	58
Clear Creek	Beaver	3,523	11.9	2.2	87
Indian Creek/North Creek	Beaver	2,143	5.5	1.6	57
Piute Front	Beaver	1,567	6.8	2.8	80
Tushar Mnts	Beaver	1,948	3.0	1.0	5
District Total:		**21,730**	**87.5**	**2.6**	**64**
Fish Lake Hightop	Richfield	31	0.3	6.0	44
Gooseberry/Lost Creek	Richfield	10,707	40.1	2.4	31
Monroe Mtn	Richfield	29,716	170.4	3.7	90
Old Woman Plateau	Richfield	6,996	20.8	2.0	75
Salina Creek	Richfield	9,479	7.9	0.5	14
District Total:		**56,929**	**239.4**	**2.7**	**64**
Grand Total:		**142,540**	**564**	**2.5**	**63**

Utah Prairie Dog:

For a detailed description of habitat, reproduction and food requirements, see Rodriguez (2005, version 4.1).

Reference Condition: The Utah prairie dog was listed as an endangered species in June of 1973 (Rodriguez 2005, version 4.1). Because of the improved status of the species and the overwhelming increases seen on private lands since 1976, the U. S. Fish and Wildlife Service reclassified the species to Threatened in May of 1984. Since the reclassification in 1984, population numbers have fluctuated on private and public lands and the species remains threatened. No critical habitat has been designated for the Utah prairie dog on the Fishlake National Forest.

The Utah prairie dog's range is limited to five counties in south-central Utah (Iron, Garfield, Piute, Wayne, Sevier). Historically, Utah prairie dogs inhabited nine Utah counties and populations are estimated at 95,000 prior to 1920. By the 1960's, the Utah prairie dog numbers and distribution were reduced due to disease, poisoning, drought, and habitat alteration due to cultivation and grazing. By 1972, there were an estimated 3,300 prairie dogs in 37 colonies (USFWS 1991).

Existing Condition and method of analysis:
There are approximately 428 acres of potentially suitable habitat on the Fishlake National Forest comprised of areas around primarily, former translocation sites. The road density averages 0.6 roads per square mile within this habitat with 76% designated as open to cross-country travel (Table 5).

Road density and the amount of unrestricted travel will be analyzed within potential suitable habitat for Utah Prairie Dogs.

Table 2. Shown is the amount of Utah Prairie Dog habitat on the Fishlake Forest by Ranger District and Geographic Area (GA) with the accompanying miles of motorized routes and resultant road density. Also shown is the current proportion of these acres designated "unrestricted", where cross-country travel is allowed.

GA Name	District	Acres	Motorized miles	Road density (miles/mile^2)	Unrestricted Travel (%)
Fishlake Basin	Loa	137	0.3	1.4	26
Mytoge Mtn/Tidwell Slopes	Loa	286	0.1	0.1	100
District Total:		**423**	**0.3**	**0.5**	**76**
Beaver Foothills	Beaver	5	0.05	6.3	100
District Total:		**5**	**0.05**	**6.3**	**100**
Grand Total:		**428**	**0.4**	**0.6**	**76**

Mexican Spotted Owl

For a detailed description of habitat, reproduction and food requirements, see Rodriguez (2005, version 4.1).

Reference Condition: The Mexican spotted owl was listed as a threatened species in 1993 and is managed under the Mexican Spotted Owl Recovery Plan. Extensive surveys during the 1990's resulted in the location of more than 20 Mexican spotted owl nests in southern Utah (HDRC, 1993). All of these nests are located on National Park Service administered lands, such as Zion and Capitol Reef National Monument (Rodriguez, 2005, version 4.1). No Critical habitat has been designated on the Fishlake National Forest.

Existing Condition and Method of Analysis:

The US Fish and Wildlife Service has determined that Garfield County is the only county where Mexican spotted owls (MSO) may occur on the Fishlake National Forest. Potential Mexican spotted owl breeding habitat is limited on the Fishlake National Forest to the Thousand Lakes Geographical Area (GA) of the Loa Ranger District. Based on field validation of potentially suitable habitat, as described by Spotsky and Willy (USFWS), suitable habitat was identified. In this area, there are approximately 331 acres of potential breeding habitat available. Although the areas were not targeted for vegetation management, most of these areas were surveyed for two consecutive years (2003-2004). Despite surveys, there have been no documented nest locations of Mexican spotted owls on the Loa Ranger District.

Table 22. Shown is a comparison of Mexican Spotted Owl habitat on the Fishlake Forest by Ranger District and Geographic Area (GA) showing the relative road density and amount of "unrestricted" travel in acres, where cross-country travel is allowed, between alternatives.

GA Name	Road density (miles/mile^2)					Unrestricted Travel (% of area)				
	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Thousand Lakes Mtn.	0	0.0	0.0	0.0	0.0	0.4	0.4	0.1	0.1	0.1
Loa District Total:	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.4**	**0.4**	**0.1**	**0.1**	**0.1**

Mexican spotted owl surveys in coniferous habitats on the plateau were extensively surveyed for MSO's (SWCA, Inc. 1990, 1991, 1992, 1993). Since the early surveys efforts of the 90's site specific surveys have been conducted at the project specific level whenever a proposal was made within close proximity of suitable habitat. In addition, suitable habitat has been surveyed and a determination as to its suitability made for suitable habitat as described in the Spotsky and Willy (USFWS) model. After several years of surveying mixed conifer habitats, owl specialists determined that suitable nesting habitat in Utah consisted of steep walled, narrow, cool canyons and not plateau tops. Therefore, surveying on the plateau for nesting Spotted owls was discontinued and efforts were focused on steep walled canyon habitats similar to those found in Zion National Park, where numerous owls were located.

Potentially suitable MSO breeding and roosting habitat (steep walled canyons) was identified in the 1997 and the redefined in 2000 by Willey/Spotskey. These models have been used for initial evaluation of potential nesting and roosting habitat in-or-around proposed projects (USFWS 2002). Through this modeling process the Fishlake National Forest identified potential MSO habitat in mixed conifer cover types in steep walled canyon complexes. Potentially suitable habitat identified on the Fishlake from modeling efforts have been visited and ground verified to determine if suitable MSO habitat existed within the modeled (steep-walled canyons) mixed conifer slopes and steep-walled canyons. Suitable MSO habitat occurs in steep walled canyon complexes where OHV recreational activities do not occur. No suitable MSO breeding or roosting habitat was located in or near roads that could potentially disrupt owls if they occurred in the area. In general, two years of calling surveys are required if suitable habitat is located within 0.5 mile of proposed management activities. However, since no suitable breeding or roosting habitat was located, surveys were not required.

One documented occurred was recorded on the Fremont River Ranger District (previously the Teasdale Ranger District, Dixie National Forest) during contracted survey efforts, however, this District is still being managed by the Dixie National Forest and is not part of this analysis. This vocalization was detected in close (less than 1 air mile) proximity to Capitol Reef National Park. Due to the proximity of this detection, and the timing of the detection, biologists have determined that this bird was likely a dispersing juvenal from the Park, which has documented nesting MSO's.

Western Yellow-billed Cuckoo

For a detailed description of habitat, reproduction and food requirements, see Rodriguez (2005, version 4.1).

Western yellow-billed cuckoos are obligate riparian nesters–they only breed in streamside forests, especially those dominated by willow and cottonwood stands. The

humid, shady environment provided by these forests provides a protective microclimate protecting nesting birds, eggs, and fledglings from the desiccating heat and dryness prevalent in late summer across the western U.S. East of the Continental Divide, where nesting occurs 3-4 weeks earlier and within landscapes which are generally more humid, eastern yellow-billed cuckoos use a broader range of nesting habitats, including some areas of upland forests and parks. Most nesting in the west occurs within relatively large patches of riparian forest, usually 25 to 100 acres in extent. Habitat use and selection in South American wintering grounds is not well known.

Existing Condition and method of analysis: There are approximately 2,664 acres of potentially suitable habitat on the Fishlake National Forest. These areas are comprised of dense muli-layer riparian habitats. The road density averages 12.4 miles of road per square mile within this habitat with 89% designated as open to cross-country travel (Table 6). Surveys for yellow-billed cuckoos have been conducted in riparian habitats with suitable vegetative structural characteristics on the Forest, but none have been detected. It is suspected that these Forest habitats are in fact too high in elevation for nesting habitat but additional surveys are planned.

Changes in road density and the amount of unrestricted travel will be analyzed within potential suitable habitat for Yellow-billed Cuckoos.

Table 6. Shown is the amount of Yellow-billed Cuckoo habitat on the Fishlake Forest by Ranger District and Geographic Area (GA) with the accompanying miles of motorized routes and resultant road density. Also shown is the current proportion of these acres designated "unrestricted", where cross-country travel is allowed.

GA Name	District	Acres	Motorized miles	Road density (miles/mile^2)	Unrestricted Travel (%)
Beaver Foothills	Fillmore	33	0.2	3.1	99
Clear Creek	Fillmore	78	1.1	9.0	100
West Pahvant	Fillmore	790	11.6	9.4	82
District Total:		**901**	**12.8**	**9.1**	**84**
Thousand Lakes Mtn	Loa	46	0	0	42
District Total:		**46**	**0**	**0**	**42**
Beaver Foothills	Beaver	109	1.8	10.7	95
Clear Creek	Beaver	540	8.9	10.5	99
Piute Front	Beaver	79	1.4	11.1	100
District Total:		**729**	**12.1**	**11.0**	**98**
Gooseberry/Lost Creek	Richfield	616	16.1	16.7	98
Monroe Mtn	Richfield	73	1.3	11.0	93
Old Woman Plateau	Richfield	22	0.1	2.9	100
Salina Creek	Richfield	278	9.1	21.0	68
District Total:		**989**	**26.6**	**17.2**	**89**
Grand Total:		**2,664**	**51.4**	**12.4**	**89**

VI. Effects of the Proposed Action

Bald Eagle

Environmental Consequences

(Tables discussed in this section are labeled as found in the EIS)

Direct/Indirect Effects

As nesting does not occur on the Fishlake National Forest, winter roosting, perching, and foraging habitat are being addressed in the discussion. On the Beaver, Fillmore, and Richfield Ranger Districts eagle use has been documented during late fall, winter and early spring, depending upon the severity of the winter. These Districts have not documented critical winter concentration areas. The effects of implementing road closures and eliminating cross-country travel will vary by year depending upon eagle use. This alternative will enhance habitat effectiveness on these Ranger Districts by decreasing the potential for disturbance by Forest users. By decreasing the potential for disturbance to eagles during this physically demanding period, eagles are more likely to pass through the critical winter months in better physical condition and have a higher likelihood of surviving the winter, and migrating back to nesting areas North of Utah.

Table 23. Shown is a comparison of Bald Eagle habitat on the Fishlake Forest by Ranger District and Geographic Area (GA) showing the relative road density and amount of "unrestricted" travel acres, where cross-country travel is allowed, between alternatives.

GA Name	Road density (miles/mile^2)					Unrestricted Travel (% of area)				
	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Canyon Range	2.0	1.7	1.8	1.4	1.9	93	17	10	8	10
Clear Creek	3.3	2.7	2.7	2.3	2.7	92	27	14	12	14
East Pahvant	3.4	3.0	2.6	1.9	2.4	100	29	13	10	13
West Pahvant	3.1	3.0	2.9	2.1	3.1	57	29	15	11	16
Fillmore District Total:	**3.1**	**2.8**	**2.6**	**2.0**	**2.6**	**84**	**27**	**14**	**11**	**14**
Fish Lake Basin	2.0	1.8	1.8	1.8	1.9	48	1	0	0	0
Fish Lake Hightop	1.4	0.9	1.0	0.8	1.2	17	7	4	3	5
Gooseberry/Lost Creek	3.5	2.7	3.2	3.2	3.3	71	28	17	17	17
Last Chance/Geyser Peak	2.0	1.3	1.3	1.3	1.5	44	10	6	5	5
Mytoge /Tidwell Slopes	2.6	1.5	1.7	1.2	1.8	81	14	8	6	9
Old Woman Plateau	1.8	1.3	1.4	1.3	1.6	100	14	8	7	9
Thousand Lakes Mtn.	1.7	1.6	1.6	0.8	1.6	6	17	9	4	7
Loa District Total:	**2.0**	**1.4**	**1.5**	**1.3**	**1.7**	**51**	**9**	**5**	**4**	**5**
Beaver Foothills	1.6	1.3	1.4	0.8	1.5	92	14	7	3	7
Beaver River Basin	3.6	3.1	3.2	2.9	2.2	58	26	14	13	14
Clear Creek	2.2	1.6	1.6	1.6	1.9	87	15	8	8	8
Indian Creek/North Creek	1.6	0.6	0.6	0.6	1.0	57	7	4	4	6
Piute Front	2.8	2.4	2.3	2.3	2.3	80	23	12	11	10
GA Name	**Road density (miles/mile^2)**					**Unrestricted Travel**				

						(% of area)				
Tushar Mtns	1.0	0.6	0.7	0.6	0.7	5	6	3	3	3
Beaver District Total:	**2.6**	**2.1**	**2.1**	**1.9**	**2.2**	**64**	**19**	**10**	**9**	**10**
Fish Lake Hightop	6.0	6.0	6.0	5.8	6.0	44	44	27	27	27
Gooseberry/Lost Creek	2.4	2.0	2.0	1.5	2.1	31	17	9	6	9
Monroe Mtn	3.7	2.8	2.7	1.8	2.8	90	27	14	9	14
Old Woman Plateau	2.0	1.5	1.5	1.2	1.5	75	16	8	6	8
Salina Creek	0.5	0.5	0.5	0.4	0.5	14	5	2	2	2
Richfield District Total:	**2.7**	**2.1**	**2.1**	**1.4**	**2.1**	**64**	**20**	**10**	**7**	**10**
Grand Total:	**2.5**	**2.0**	**2.0**	**1.5**	**2.1**	**63**	**18**	**9**	**7**	**9**

On the Loa Ranger District, roosting areas have been identified but their pattern of use and frequency is sporadic, and they do not qualify to be classified as critical winter concentration areas (communal roost sites). Implementation of this alternative will close small user created trails that pass near these intermittent roosting areas and will enhance the habitat effectiveness for eagles that use this portion of the District. Implementation of the preferred alternative would close roads, and halt cross-country travel into areas where eagles may perch and forage until sever winter conditions force them to areas outside of National Forest boundaries. The preferred alternative has the potential for minor disturbances to perched bald eagles during migration periods. The potential effects could result in flushing an eagle from one perch to another or temporarily displacing a foraging eagle. However, these disturbances would be limited in duration and intensity as the Fishlake is not used by the public heavily during the time periods when eagles are present and using the Forest.

Direct effects from closing roads and halting cross-country travel would enhance habitat effectiveness across all Districts and GA's as the potential for disturbance from random cross-country use across the Forest would be substantially decreased. Although the chance for some slight disturbance does still occur, the potential for disturbance is decreased from the current condition. On the Loa Ranger District beneficial effects to bald eagles would occur as a result of road closers and the elimination of cross-country travel into areas where eagles are know to perch during mild winters.

Because the current road density levels do not appear to be displacing foraging or roosting bald eagles, the reduction in road density in the Preferred Alternative would not measurably improve foraging conditions for the bald eagle because little disturbance is currently occurring.

Although the Preferred Alternative would reduce impacts to soil and vegetation that supports eagle prey in upland winter habitat as well as reduce disturbances to foraging eagles, this beneficial effect of increased habitat would be low. The Loa District has not been identified as supporting a critical winter concentration area for the bald eagle as use is low and unpredictable. Motorized use is also typically low in the winter months when snow and bald eagles are present and current use does not appear to be disrupting foraging opportunities where eagles have been documented. Therefore, implementation of the Preferred Alternative would enhance eagle habitat effectiveness slightly on all Ranger Districts across the Forest but would be difficult to quantify as eagles only use the

Forest during select time periods sporadically during the late fall, winter and early spring. This alternative may enhance habitat effectiveness over time, while still allowing some minor disturbances to roosting or foraging eagles. These effects will not affect the bald eagle or its habitat, and will enhance habitat over time.

Cumulative Effects

The cumulative effects area CEA for the bald eagle is the entire Fishlake National Forest (Map 1), some 1,564,230 acres. This area was selected because it represents the area of influence of the proposed action, and the area in which eagle use has been monitored by the Forest Service.

Past, present, and reasonably foreseeable future activities within the CEA include grazing, recreation, timber and thinning operations, reforestation, seeding of native and non-native species, natural and prescribed fire, noxious weed control, and other special uses such as small mine claims, firewood and post cutting. Recreation-related activities include hunting, camping, day/picnic use, hiking, horseback riding, all-terrain vehicle (ATV & OHV) and snowmobiling. Habitat improvement projects (i.e. seeding, pinyon/juniper chainings and thinnings, prescribed burning, and water developments) across the Forest have helped to maintain various prey populations for bald eagles. Recreational activities and recreational infrastructure (roads, trails, structures, and campground development) may contribute to bald eagle habitat fragmentation, habitat loss, air pollution, audio and visual disturbance, and other disturbances caused by wildlife/public interactions. Timber activities that avoid bald eagle roost trees will not impact eagles themselves, but will improve forage production for potential prey species that benefit from earlier successional stages.

There are approximately 44,094 acres that have been identified as potential foraging and roosting habitat for wintering bald eagles within the CEA. The footprint for the proposed motorized system would occupy about .8-1.1% of this habitat. Road density would be reduced on average by about 15-35% and range between 1.3 and 1.7 miles/square mile, depending on the selected alternative (Table 23). Because the current motorized system occupies a small proportion of available habitat and bald eagle foraging and roosting does not appear to be disrupted under the current use, the contribution to cumulative effects would be low.

Implementation of any Action Alternatives would reduce unrestricted travel within the CEA by 82-92%. Where 52% of potential habitat was open to cross-country travel under the No Action Alternative, the Preferred Alternative would reduce this to 9% of bald eagle winter habitat. This represents a 43% reduction in potential habitat that was open to cross-country travel under the No Action Alternative. The motorized travel changes proposed in the Preferred Alternative, when combined with past, present, and reasonably foreseeable activities, would improve habitat effectiveness over time by reducing physical disturbances to soils and vegetation that support bald eagle prey and reducing the potential for disturbances to foraging eagles. Therefore, implementation of the Preferred Alternative in combination with past, present, and reasonably foreseeable actions activities may affect bald eagles, and would improve habitat effectiveness over

time by enhancing mammal prey species, by reducing physical disturbances to soils, vegetation, and water created by cross-country travel. In addition, it would reduce the likelihood of disturbance to roosting, perching and foraging eagles.

Utah Prairie Dog

Environmental Consequences

Basic habitat requirements for the Utah prairie dog include deep, well-drained soil, vegetation low enough to see over and through, and suitable forage. Of the nearly million and a half acres on the Forest, there are approximately 428 acres that have had relatively recent prairie dog occupation (Rodriguez 2005, version 4.1) due to translocations by the UDWR. These areas are based on 4 transplant sites on the Loa and Beaver Districts. Prairie dogs may not have occurred on these sites historically. Over 98% of these acres occur on the Loa Ranger District.

Table 24. Shown is a comparison of historic Utah Prairie Dog habitat on the Fishlake Forest by Ranger District and Geographic Area (GA) showing the relative road density and amount of "unrestricted" travel acres, where cross-country travel is allowed, between alternatives.

GA Name	Road density (miles/mile^2)					Unrestricted Travel (% of area)				
	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Fish Lake Basin	1.4	0.8	0.8	0.8	1.0	26	0	0	0	0
Mytoge /Tidwell Slopes	0.1	0	0	0	0.1	100	3	0	0	1
Loa District Total:	**0.5**	**0.3**	**0.3**	**0.3**	**0.4**	**76**	**2**	**0**	**0**	**1**
Beaver Foothills	6.3	6.3	6.3	6.3	6.3	100	77	37	37	37
Beaver District Total:	**6.3**	**6.3**	**6.3**	**6.3**	**6.3**	**100**	**77**	**37**	**37**	**37**
Grand Total:	**0.6**	**0.3**	**0.3**	**0.3**	**0.5**	**76**	**3**	**0**	**0**	**1**

Designated motorized roads and trails within historical prairie dog habitat on the Forest, would not change under the current plan. Because this use is already minimal, the continued use of these travel ways would not be measurable to the Utah prairie dog. Unrestricted travel at the Forest level would incrementally drop from 76% of this habitat under the current plan, down to near 1% in Alternative 5 (Table 24). These improvements would occur by reducing habitat fragmentation, and impacts to soils and vegetation that support the prairie dog. Impacts to this species may vary by district.

The Loa District provides the majority of habitat with approximately 423 acres of previously occupied colonies. These former colonies were created from transplanted prairie dog individuals. UDWR conducted prairie dog transplants in the late 1970s through the early 1990s into what was thought to be potential habitat. Prairie dogs were last counted at these sites as late as 2001even though monitoring has continued through 2006. It is unknown at this time why these sites have not been more successful, perhaps the habitat was not suitable for them, or predators/plagues were causal effects. There is only anecdotal evidence that suggests that prairie dogs once occurred historically on the

Loa Ranger District, but no records are available. The prairie dog transplant sites occur in 2 Geographical Areas, the Mytoge Mtn/Tidwell Slopes and the Fish Lake Basin.

On the Beaver Ranger District current road density within prairie dog habitat under the existing plan appears relatively high, upon closer analysis it is revealed that this includes only 5 acres of habitat on the District with an access road in a portion of it. This habitat represents a failed translocation area on the southwest portion of the District near Rocky Reservoir. The posts and wire from a fence constructed to exclude predators are still evident. The entire 5 acres is currently considered open to unrestricted travel. Unrestricted travel reduces soil productivity due to compaction and erosion and impacts vegetation that supports prairie dog populations, as well as destroying burrow systems.

Given the amount of unrestricted travel currently allowed, implementation of alternative 5 would likely mean a decrease in the proliferation of additional routes within this habitat. Over time, these would result in an increase in Utah Prairie Dog habitat effectiveness.

The proposed road densities within prairie dog habitat would not change from the existing travel plan with any of the action alternatives. Similar to the No Action Alternative, road density in prairie dog habitat is based on the road within the 5 acres of habitat considered historically occupied on the Beaver District. The most dramatic difference between the No Action Alternative and Alternatives 5 is the reduction in overall unrestricted travel.

There would be a 20-40% reduction in the number of miles of motorized roads and trails/square mile within potential prairie dog habitat, depending on the Action Alternative selected (Table 24). Alternative 5 would reduce road density the least of the Action Alternatives within potential habitat. Although road reductions in prairie dog habitat have the ability to reduce habitat fragmentation and other impacts to prairie dogs, these proposed changes would not have a measurable affect, because there is currently very little designated motorized use within prairie dog habitat and the placement of these motorized routes are outside any known or historic colony.

Determinations and Rationale

Approximately 76% of potential habitat for the Utah Prairie Dog is at risk of motorized travel expansion, which could impact burrow systems and reduce the productivity of the soils and vegetation that support prairie dogs. Because there has been no activity at any of the translocation sites since 2001, and no future translocations are planned until further evaluated, there would be no impacts to prairie dog individuals or populations under the current plan. However, potential habitat is at risk of being degraded, although even these areas need to be further evaluated to see if indeed they were suitable sites

Implementation of Alternative 5 would reduce the area where cross-country travel could occur to 1%. Incremental improvements to habitat due to road reductions would be low,

however, the current road density level is already low (.5 mile/square mile) and there are no roads on or immediately adjacent to any translocation site.

The proposed road densities within prairie dog habitat would not change from the existing travel plan with any of the action alternatives. Similar to the No Action Alternative, road density in prairie dog habitat is based on the road within the 5 acres of habitat considered historically occupied on the Beaver District. The most dramatic difference between the No Action Alternative and all the Action Alternatives is the reduction in overall unrestricted travel.

There would be no changes to road density levels within prairie dog habitat under Alternative 5. However, unrestricted travel would be dramatically reduced within prairie dog habitat under alternative 5. This alternative would maintain a 150-foot access strip along designated routes, down from 300 foot wide. Unrestricted travel would be reduced under this alternative, lowering the potential for impacts to soil and vegetation that support prairie dog populations thus increasing habitat effectiveness.

The motorized travel changes proposed in alternative 5 would improve habitat effectiveness over time by reducing physical disturbances to soils, vegetation and burrow systems. Implementation of this Alternative may have a beneficial effect on potential prairie habitat, but these effects would be low, as transplant sites are currently unoccupied and may remain so until further evaluated. Therefore, implementation of alternative 5 may impact individuals or habitat but is not likely to adversely affect species viability, and over time would have a beneficial effect.

Cumulative Effects

The cumulative effects area CEA) for the Utah prairie dog is the Beaver, and Loa Ranger Districts, (Map 2). This area is comprised of 580,314 acres, however, of these total acres approximately 428 acres that have had relatively recent prairie dog occupation (Rodriguez 2005, version 4.1) due to translocations by the UDWR. This area was selected because it represents the area of influence of the proposed action, and the area in which prairie dogs may use suitable habitat on the Forest.

Past, present, and reasonably foreseeable future activities within the CEA include grazing, recreation, timber and thinning operations, reforestation, seeding of native and non-native species, natural and prescribed fire, noxious weed control, and other special uses such as small mine claims, firewood and post cutting. Recreation-related activities include hunting, camping, day/picnic use, hiking, horseback riding, rifle shooting, and all-terrain vehicle (ATV & OHV). Habitat improvement projects (i.e. seeding, pinyon/juniper chainings and thinnings, prescribed burning, and water developments) across the Forest have helped to maintain lower vegetation height's for prairie dogs. Recreational activities may contribute to prairie dog habitat fragmentation, habitat loss, air pollution, audio and visual disturbance, and other disturbances caused by wildlife/public interactions. Timber activities would not impact prairie dogs themselves,

but roads and designated skid trails could cause disturbances if they occupied and area where treatment occurred and dogs moved into an area after surveys were complete.

There are approximately 428 acres of potentially suitable prairie dog habitat within the CEA. The footprint proposed for the motorized transportation system in each of the Action Alternatives would physically occur on much less than 1% of potential habitat due to proposed road closures. Road density within potential habitat would be reduced by 20-40% within the CEA. Similar to the No Action Alternative no motorized roads or trails would occur on or adjacent to any translocation site. The incremental improvements in potential prairie dog habitat within the CEA due to road reductions would not be measurable because existing road densities are already low and they do not occur on or immediately adjacent to any translocation site.

Alternative 5 would reduce cross-country or unrestricted travel in potential prairie dog habitat within the CEA by 97-100%. These proposed changes would reduce potential impacts to burrow systems and soils and vegetation that support prairie dogs. The motorized travel changes proposed in Alternative 5, when combined with past, present, and reasonably foreseeable actions, would improve habitat effectiveness for the Utah prairie dog within the CEA.

Mexican Spotted Owl

Environmental Consequences

Potential Mexican spotted owl breeding habitat is limited on the Fishlake National Forest to the Thousand Lakes Geographical Area (GA) of the Loa Ranger District. In this area, there are approximately 331 acres of potential breeding habitat available. Based on field validation of potentially suitable habitat, as described by Spotsky and Willy (USFWS), suitable habitat was identified. Most of these areas were surveyed for two consecutive years (2003-2004). Despite surveys, there have been no documented nest locations of Mexican spotted owls on the Loa Ranger District to date.

Table 22. Shown is a comparison of Mexican Spotted Owl habitat on the Fishlake Forest by Ranger District and Geographic Area (GA) showing the relative road density and amount of "unrestricted" travel in acres, where cross-country travel is allowed, between alternatives.

GA Name	Road density (miles/mile^2)					Unrestricted Travel (% of area)				
	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Thousand Lakes Mtn.	0	0.0	0.0	0.0	0.0	0.4	0.4	0.1	0.1	0.1
Loa District Total:	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.4**	**0.4**	**0.1**	**0.1**	**0.1**

Direct/Indirect Effects

Effects are being discussed on the Loa Ranger District, as this is the only area on the Fishlake National Forest that has been identified by the USFWS as potentially supporting Mexican spotted owls. There would be no roads or motorized trails proposed within suitable spotted owl habitat in the Preferred Alternative. There would be a slight reduction in unrestricted motorized travel into potentially suitable habitat (1.17 acres). Because cross-country travel would, either not be permitted or accessible in potentially suitable habitat, there would be no effect on individuals or habitat as a result of implementing the Preferred Alternative.

Because suitable breeding habitat would not be accessible by cross-country motorized travel and there are no known spotted owl populations, there would be no effect on the Mexican spotted owl or its habitat as a result of implementing the Preferred Alternative.

Cumulative Effects

The CEA for the Mexican spotted owl consists of the steep walled canyons located on the Loa Ranger District, and Capitol Reef National Park located east of the Forest (Map 3).

There would be no incremental effects to Mexican spotted owl individuals or breeding habitat as a result of implementing the Preferred Alternative, therefore, no cumulative effects to this listed species would occur.

Yellow-billed Cuckoo

The yellow-billed cuckoo has not been documented on the Forest to date despite survey attempts. Few areas with potentially suitable habitat occur across the Forest because they are restricted to riparian habitat containing cottonwood and willow overstory and dense brushy understories below 7,000 feet elevation (Rodriguez 2005, version 4.1). Through computer generated habitat models, approximately 2,664 acres have been identified as being potentially suitable on the Fishlake National Forest.

Table 25. Shown is a comparison of Yellow-billed Cuckoo habitat on the Fishlake Forest by Ranger District and Geographic Area (GA) showing the relative road density and amount of "unrestricted" travel acres, where cross-country travel is allowed, between alternatives.

GA Name	Road density (miles/mile^2)					Unrestricted Travel (% of area)				
	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5
Beaver Foothills	3.1	1.8	1.8	1.8	3.1	99	28	7	7	15
Clear Creek	9.0	8.5	8.9	8.5	8.9	100	33	32	29	32
West Pahvant	9.4	9.3	9.5	8.5	9.5	82	67	46	41	45
Fillmore District Total:	**9.1**	**8.9**	**9.1**	**8.3**	**9.2**	**84**	**63**	**44**	**39**	**43**
Thousand Lakes Mtn.	0	0	0	0	0	42	0	0	0	0
Loa District Total:	**0**	**0**	**0**	**0**	**0**	**42**	**0**	**0**	**0**	**0**
Beaver Foothills	10.7	10.4	10.4	10.3	10.4	95	45	34	34	34

Beaver River Basin	10.5	9.7	8.8	8.4	8.9	99	44	26	24	26
Piute Front	11.1	8.8	8.8	8.8	8.9	100	57	28	27	32
Beaver District Total:	**11.0**	**9.7**	**9.0**	**8.7**	**9.1**	**98**	**45**	**27**	**26**	**28**
Gooseberry/Lost Creek	16.7	16.6	16.6	16.4	16.7	98	48	32	32	31
Monroe Mtn	11.0	5.6	5.6	4.8	5.6	93	15	16	11	13
Old Woman Plateau	2.9	2.9	2.9	2.9	2.9	100	80	30	30	30
Salina Creek	21.0	19.2	19.6	19.0	20.0	68	36	26	24	25
Richfield District Total:	**17.2**	**16.2**	**16.3**	**16.0**	**16.5**	**89**	**43**	**29**	**28**	**28**
Grand Total:	**12.4**	**11.7**	**11.6**	**11.1**	**11.7**	**89**	**49**	**33**	**31**	**33**

Designated motorized roads and trail density within potential yellow-billed cuckoo habitat would be incrementally reduced under each action alternative, with Alternative 5 resulting in 11.7 miles of road per square mile. This change would not measurably reduce the overall high road density that occurs in potential habitat on some of the Districts. This project and analysis was not designed to close roads to meet all species requirements, rather, it was designed to halt cross-country, and close some roads. It was not intended to evaluate the needs of each species on the Forest and reduce roads to meet specific habitat needs. This would need to be handled in another Forest action. However, unrestricted travel would be reduced incrementally under each alternative, with Alternative 5 going down to 33% of potential habitat (Table 25). These changes would improve habitat effectiveness for the yellow-billed cuckoo on the Forest over what occurs today. Because the yellow-billed cuckoo is not known to occur on the Forest, impacts to individuals and species would not occur

All action alternatives, including alternative 5 will for the most part, reduce road density and the amount of unrestricted travel. On the Fillmore Ranger District the road density in suitable habitat would increase by $1/10^{th}$ of a mile, which would not be detectable. Given the level of routes that already exist in these low elevation riparian corridors, the reductions are not as dramatic as those seen for other habitats. Motorized access on the District is commonly found in narrow canyon bottoms paralleling the stream. Thus, any reduction in road density and/or unrestricted travel would contribute to more effective habitat for the yellow-billed cuckoo over time.

Cumulative Effects

The CEA for this species is the entire Fishlake National Forest (Map 4), which is comprised of 1,564,230 acres. Within this large area, suitable habitat consists of multi-layered riparian habitat below 7,000 feet in elevation.

Past, present, and reasonably foreseeable activities within the cumulative effects area include grazing, recreation, timber and thinning operations, reforestation, seeding of native and non-native species, natural and prescribed fire, noxious weed control, and other special uses such as small mine claims, firewood and post cutting. Recreation-related activities include hunting, camping, day/picnic use, hiking, horseback riding, and all-terrain vehicle (ATV & OHV) use. Recreational activities and recreational infrastructure (roads, trails, structures, and campground development) may contribute to yellow-billed cuckoo habitat fragmentation, habitat loss, air pollution, audio and visual

disturbance, and other disturbances caused by wildlife/public interactions. Timber activities that avoid impacting riparian vegetation directly or indirectly, downstream; will not impact cuckoos themselves.

Alternative 5 contains seasonally closed areas to motorized travel in the Sulphur Creek area where potentially suitable yellow-billed cuckoo habitat has been identified. Because snowmobile travel would not occur in a dense understory environment and the yellow-billed cuckoo, if it occurred in the area, would migrate away at this time, the proposed changes would have no affect on this species or habitat.

Similar to the No Action Alternative, there would be no designated roads proposed within potentially suitable yellow-billed cuckoo habitat under alternative 5. The only difference between alternative 5 and the No Action Alternative is that unrestricted travel would be eliminated within potentially suitable habitat. Because it would be difficult, if not impossible to access these rocky and dense understory riparian areas anyway, the proposed reductions in unrestricted travel would not affect the yellow-billed cuckoo or potential habitat.

The Preferred Alternative reduces road density and the amount of unrestricted travel. Given the level of routes that already exist in these low elevation riparian corridors, these reductions are not as dramatic as those seen for other habitats. Motorized access across the Forest is commonly located in narrow canyon bottoms paralleling the stream. Having said this, any reduction in road density along with unrestricted travel would contribute to more effective habitat for the yellow-billed cuckoo over time.

Road densities remain close to the No Action Alternative because few routes within these riparian corridors are affected by the changes proposed, except in the Clear Creek GA where road density is reduced. Thus, although there have been no confirmed sightings of yellow-billed cuckoos on the District, these action alternatives would contribute to more effective suitable habitat by reducing unrestricted travel and to a degree, road density.

The motorized travel changes proposed in Alternative 5 would improve habitat effectiveness over time by reducing physical disturbances to soils, vegetation and water created by cross-country travel. Therefore, the effects of the past, present, and reasonably foreseeable activities listed above in combination with Alternative 5 may affect yellow-billed cuckoo individuals, but these cumulative effects would not adversely affect population numbers or the persistence of the species across the Forest over time.

VII. Determination

As a result of this analysis, it is my professional determination that implementation of Alternative 5 May Affect, but is Not Likely to Adversely Affect' the Bald Eagle, Yellow-billed Cuckoo, and the Utah Prairie Dog. Beneficial affects will occur to these species over time as cross country routes are no longer used, or created, and as habitat effectiveness for these species improves. There will be no affect to the Mexican spotted owl because suitable breeding habitat would not be accessible by motorized travel. If

motorized roads or trails are found to cause, or will cause adverse environmental affects to listed, or proposed species, the authorized officer retains the authority to immediately close areas, roads, or trails. This process will be coordinated through the consultation process with the U.S. Fish and Wildlife Service Salt Lake City Field Office.

VII. Management Recommendations

We will consult the U.S. Fish and Wildlife Service in accordance with Section 7 of the Endangered Species Act. The act requires consultation to ensure that any site-specific plan (1) is not likely to jeopardize continued existence of any species listed or proposed to be listed, or (2) does not destroy or adversely modify critical habitat. Access standards in effect for existing recovery plans will be followed. In addition, the authorized officer retains authority to immediately close areas, roads, or trails if motorized use is causing or will cause considerable adverse environmental effects to species listed or proposed to be listed.

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X. Contributors

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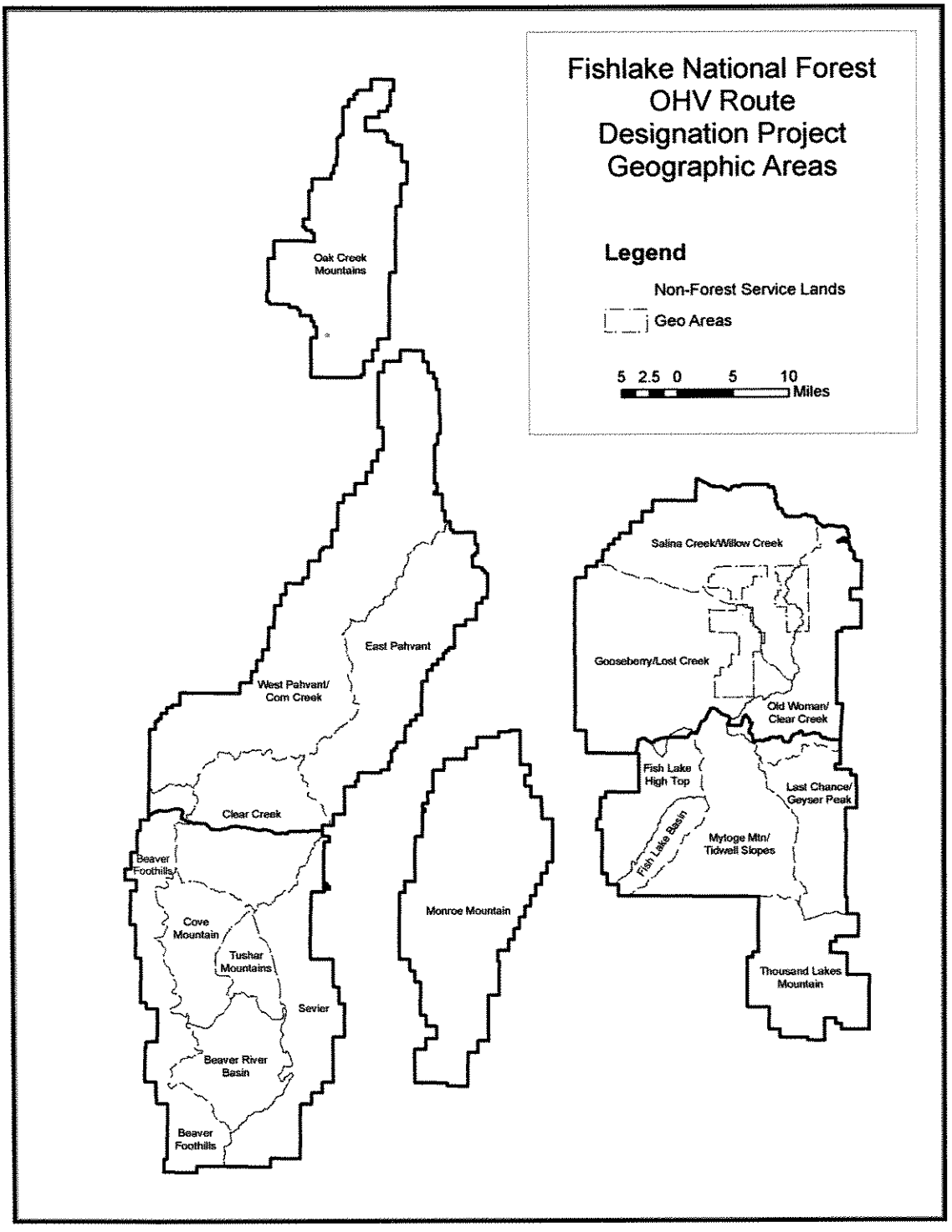
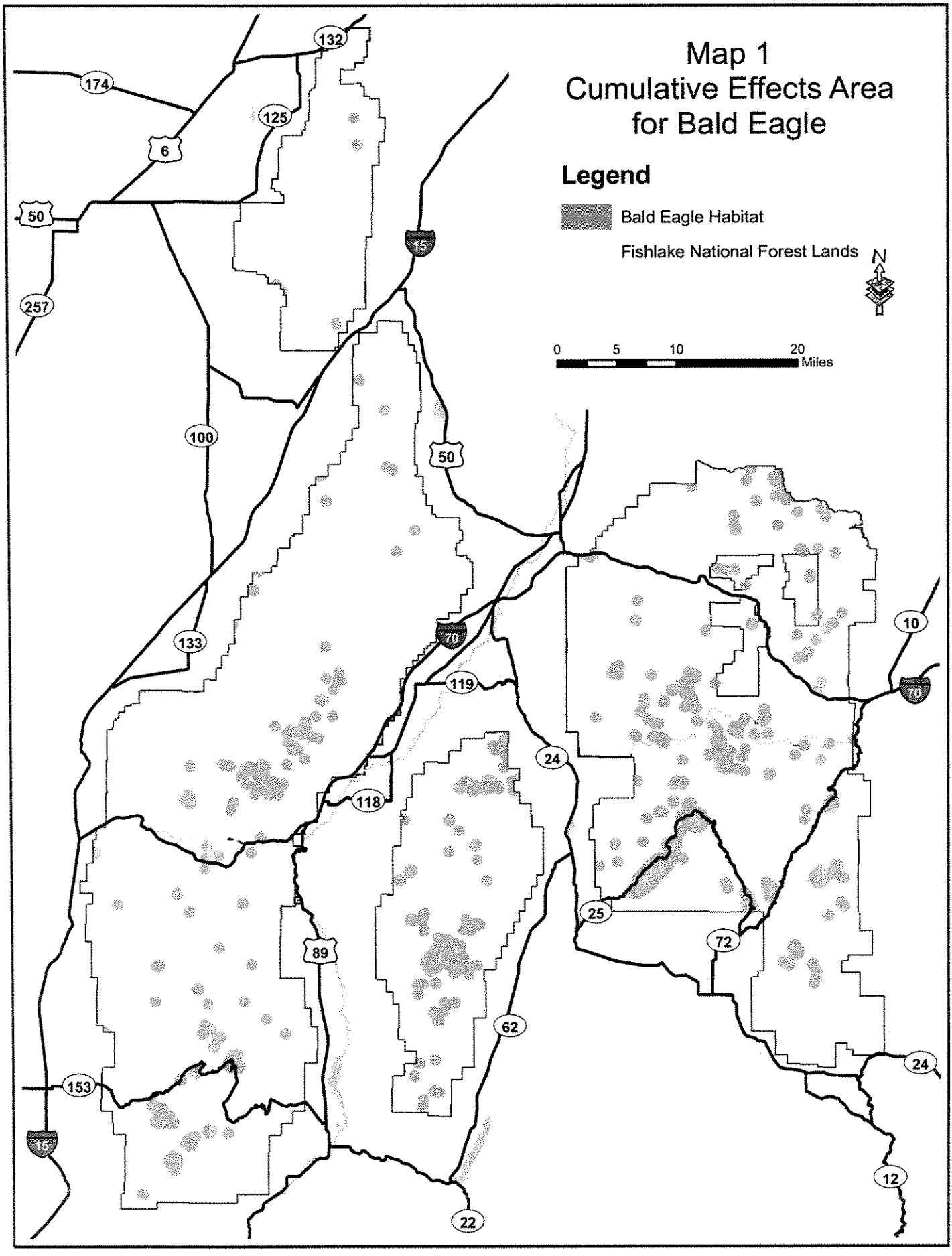
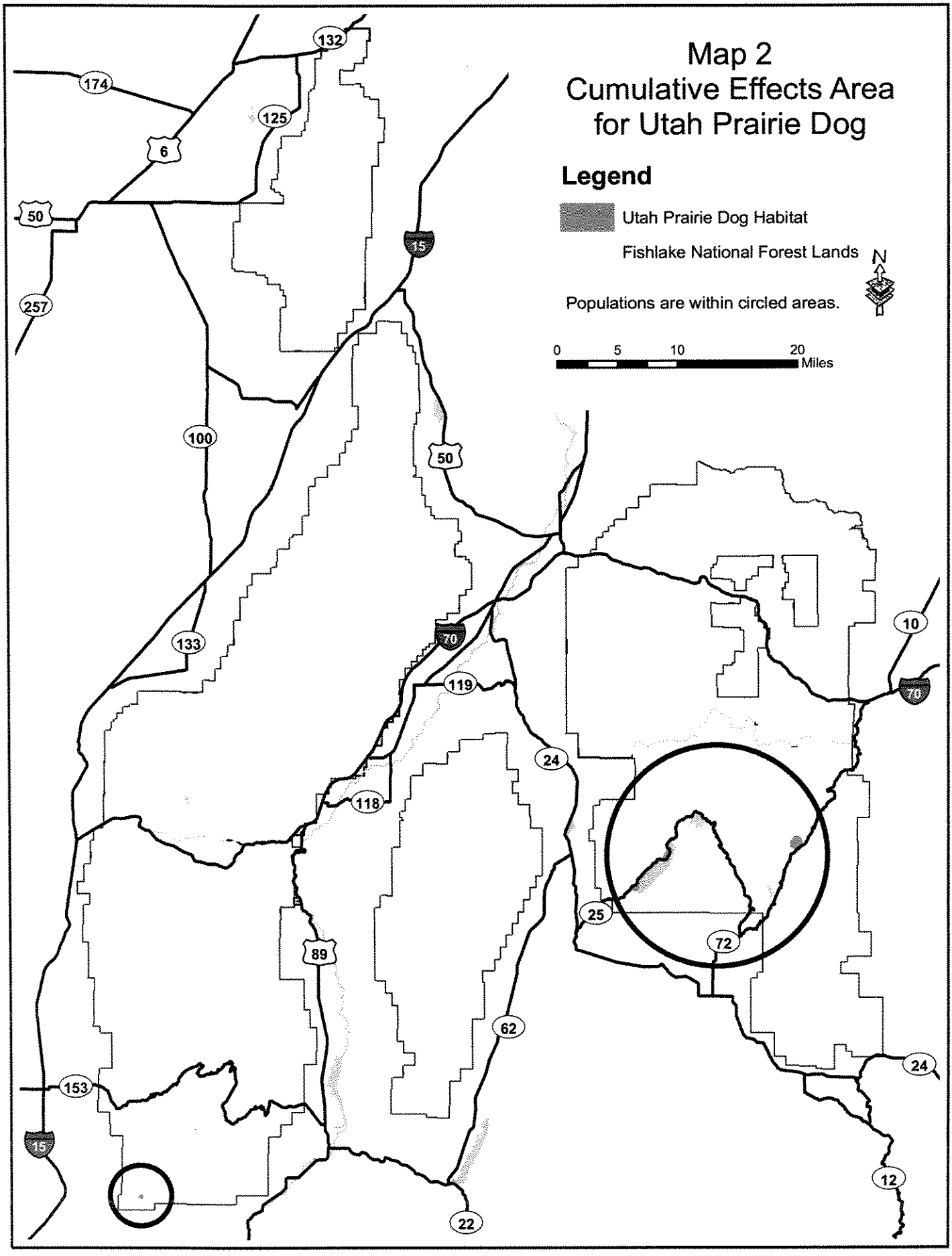
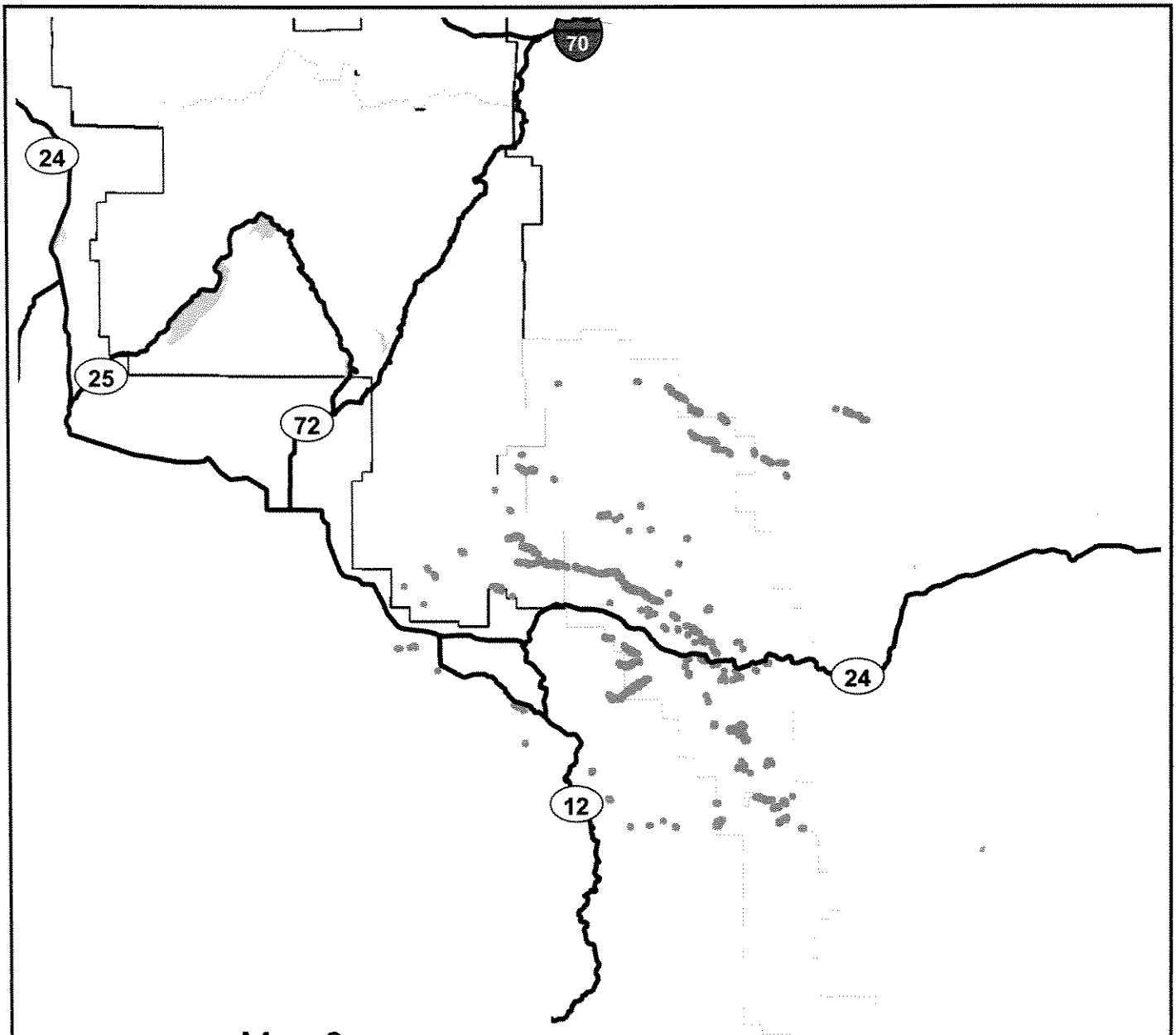
XI. Attachments

Map 1. Shown are the various Geographic Areas identified on the Fishlake National Forest associated with the Travel Plan project.


Fishlake National Forest
OHV Route
Designation Project
Geographic Areas
Legend
Non-Forest Service Lands
Geo Areas
5 2.5 0 5 10
Miles
Oak Creek Mountains
East Pahvant
West Pahvant/ Corn Creek
Clear Creek
Beaver Foothills
Cove Mountain
Tushar Mountains
Sevier
Beaver River Basin
Beaver Foothills
Monroe Mountain
Salina Creek/Willow Creek
Gooseberry/Lost Creek
Old Woman/ Clear Creek
Fish Lake High Top
Last Chance/ Geyser Peak
Fish Lake Basin
Mytoge Mtn/ Tidwell Slopes
Thousand Lakes Mountain


Map 1
Cumulative Effects Area
for Bald Eagle
Legend
Bald Eagle Habitat
Fishlake National Forest Lands
N
0 5 10 20
Miles
132
174
125
6
50
15
257
100
50
133
70
119
24
118
89
62
153
15
22
25
72
10
70
24
12


Map 2
Cumulative Effects Area
for Utah Prairie Dog
Legend
Utah Prairie Dog Habitat
Fishlake National Forest Lands
Populations are within circled areas.
N
0 5 10 20
Miles
132
174
125
6
50
15
257
100
50
133
70
119
24
118
89
62
153
15
22
10
70
24
25
72
12



Map 3
Cumulative Effects Area for Mexican Spotted Owl

Legend

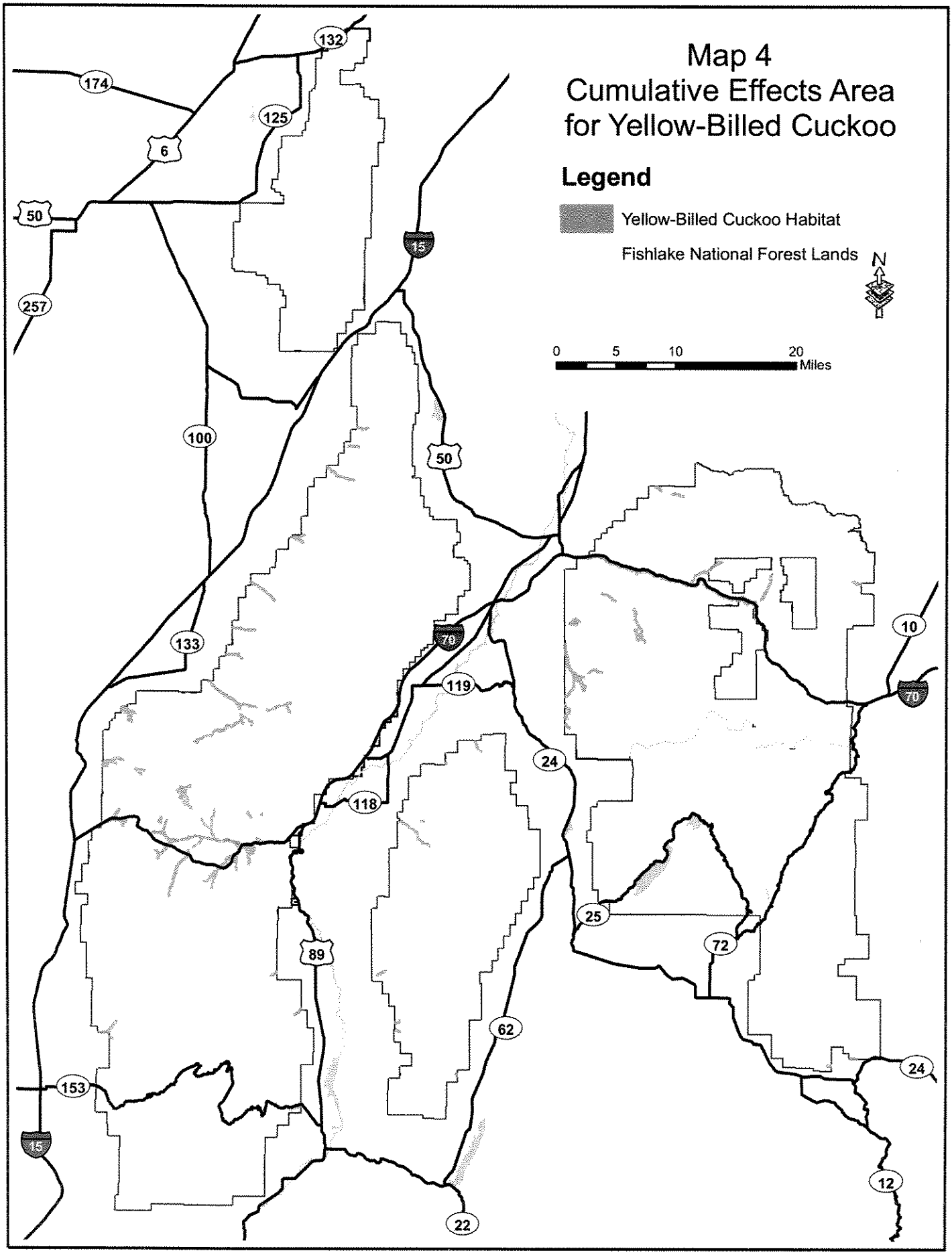
Mexican Spotted Owl Habitat, Wayne County

Fishlake National Forest Lands

Capitol Reef National Park

N

0 5 10 20 Miles


Map 4
Cumulative Effects Area
for Yellow-Billed Cuckoo
Legend
Yellow-Billed Cuckoo Habitat
Fishlake National Forest Lands
N
0 5 10 20
Miles
132
174
125
6
50
15
257
100
50
133
70
119
24
118
10
70
25
72
89
62
153
15
24
12
22