

FINAL ENVIRONMENT ASSESSMENT

FOR THE

WEST CENTRAL PLANNING AREA PROGRAMMATIC
CANDIDATE CONSERVATION AGREEMENT WITH
ASSURANCES

FOR GREATER SAGE-GROUSE
IN IDAHO

PREPARED BY

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ABSTRACT

The purpose of this environmental assessment (EA) is to evaluate the proposed action and two additional alternatives for implementing a Programmatic Candidate Conservation Agreement with Assurances for the greater sage-grouse (*Centrocercus urophasianus*). Under the proposed action, the U.S. Fish and Wildlife Service (FWS) would approve the Candidate Conservation Agreement with Assurances (Agreement) and would issue an Enhancement of Survival Permit (Permit) to the Idaho Department of Fish and Game (IDFG) pursuant to section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended (ESA). Non-Federal property owners would participate by agreeing to implement conservation measures on their lands through the development of site specific plans that are consistent with the Agreement and which would benefit and reduce threats to greater sage-grouse. Upon approval of their site-specific plan by IDFG and FWS (Agencies), the individual property owner would be authorized to enroll their lands under the Programmatic Agreement and would be issued a certificate of inclusion by the IDFG. Participating property owners would be provided with regulatory assurances and, through their certificates of inclusion, would be authorized to incidentally “take” greater sage-grouse as a result of otherwise lawful management activities on their enrolled lands if the sage-grouse is subsequently listed under the ESA within the duration of the Permit. Authorized take can result from implementation of the covered activities.

Sage-grouse have become an icon of the health of sage-brush ecosystems across the West. Once plentiful, their numbers have declined for a variety of reasons, many of them human caused. Invasions of exotic annual grasses that have modified fire regimes, conversion of sage-brush stands to agricultural use, subdivision of rural lands into ranchettes and other human developments have fragmented and reduced the large, secure expanses of habitat necessary to sustain sage-grouse. As part of the ongoing efforts to conserve sage-grouse and their habitat, the state of Idaho approved the 2006 Conservation Plan for the Greater Sage-grouse in Idaho. The Plan divides the state into thirteen separate planning areas where protection and recovery efforts will be guided by Local Working Groups made up of representative stakeholders. One of these areas is the West Central Planning Area (WCPA) which is the action area of this EA.

The National Environmental Policy Act of 1969, as amended (NEPA), requires Federal agencies to evaluate and disclose the effects of their proposed actions on the human environment. The Service has determined that an EA is appropriate to analyze the effects of the proposed action and has prepared this EA pursuant to NEPA (42 U.S.C. 4321 et seq.) and associated regulations (40 CFR 1500-1508) for approval of the Agreement and issuance of the Permit. This EA addresses the potential effects on the human environment associated with implementation of the proposed Agreement and anticipated issuance of a Permit to the IDFG. In accordance with Service responsibilities under NEPA, this EA also addresses a “no-action” alternative and a Landowner by Landowner alternative.

The Agreement is consistent with the FWS’s “Candidate Conservation Agreement with Assurances Final Policy” (64 FR 32726). Application requirements and issuance

criteria for Enhancement of Survival Permits through Candidate Conservation Agreements with Assurances are found in 50 CFR 17.22(d) and 17.32(d). The policy encourages the implementation of conservation measures for species that have not been listed under the Endangered Species Act, but warrant agency concern. The Agreement identifies the obligations of the Agencies as well as participating property owners. Approval of the Agreement would provide conservation benefits for greater sage-grouse on those private lands enrolled under the Agreement throughout the estimated 930,640-acre project area.

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CHAPTER I: INTRODUCTION

This chapter describes the purpose and need for the Proposed Action, Scoping, and Decisions to be made.

A. Purpose for the Proposed Action

The purpose of this environmental assessment (EA) is to evaluate the proposal and 2 alternatives for approving and implementing a programmatic Candidate Conservation Agreement with Assurances (Agreement) for the Greater sage-grouse (*Centrocercus urophasianus*; sage-grouse) in the West Central Planning Area (WCPA) and within portions of Washington, Adams, Gem and Payette Counties, Idaho. The purpose of the proposed Agreement is to improve conservation of the species on private lands, while allowing compatible existing land uses to continue. The WCPA contains an isolated population of sage-grouse. The proposed Agreement is programmatic in nature; the Idaho Department of Fish and Game (IDFG, Applicant) has applied for an Enhancement of Survival permit under section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended (ESA). Under the Agreement, the IDFG, in coordination with the Fish and Wildlife Service (Service) would issue Certificates of Inclusion to private landowners who, through site-specific plans, would voluntarily document habitat conditions and commit to actions to ensure the reduction of threats and ensure conservation of sage-grouse on their properties. This environmental assessment is needed to allow the Service to evaluate the proposed Agreement and the Applicant's request for a section 10(a)(1)(A) Permit, as well as our need to conserve an isolated population of sage-grouse in Idaho.

The proposed Agreement would support efforts to manage for the enhancement, protection, creation, or restoration of habitat for sage-grouse, including wintering, breeding, and brood-rearing habitats. Conservation measures are primarily associated with agricultural and grazing practices on private lands and they include modification of existing agricultural and grazing practices for the purpose of conserving the species.

The proposed Agreement is programmatic in nature, covering approximately 930,640 acres within the WCPA, of which 594,000 acres are private and 51,000 are State endowment lands, eligible for enrollment under the Agreement (Figure 1). Under the Agreement, individual "Participating Property owners" would sign and be issued a Certificate of Inclusion under the IDFG's Permit. The individual property owner must work with the Service and IDFG to develop a mutually agreeable site-specific management plan that provides adequate conservation for sage-grouse consistent with the participating landowner's land use activities and the Agreement. If a Certificate of Inclusion is signed and issued to a participating property owner, they would then be authorized to incidentally take sage-grouse as long as the terms and conditions of the Permit and their site-specific plan are followed. Should the species eventually be listed under the ESA, the proposed permit would authorize limited incidental take of sage-grouse that may occur as a result of specified land management practices.

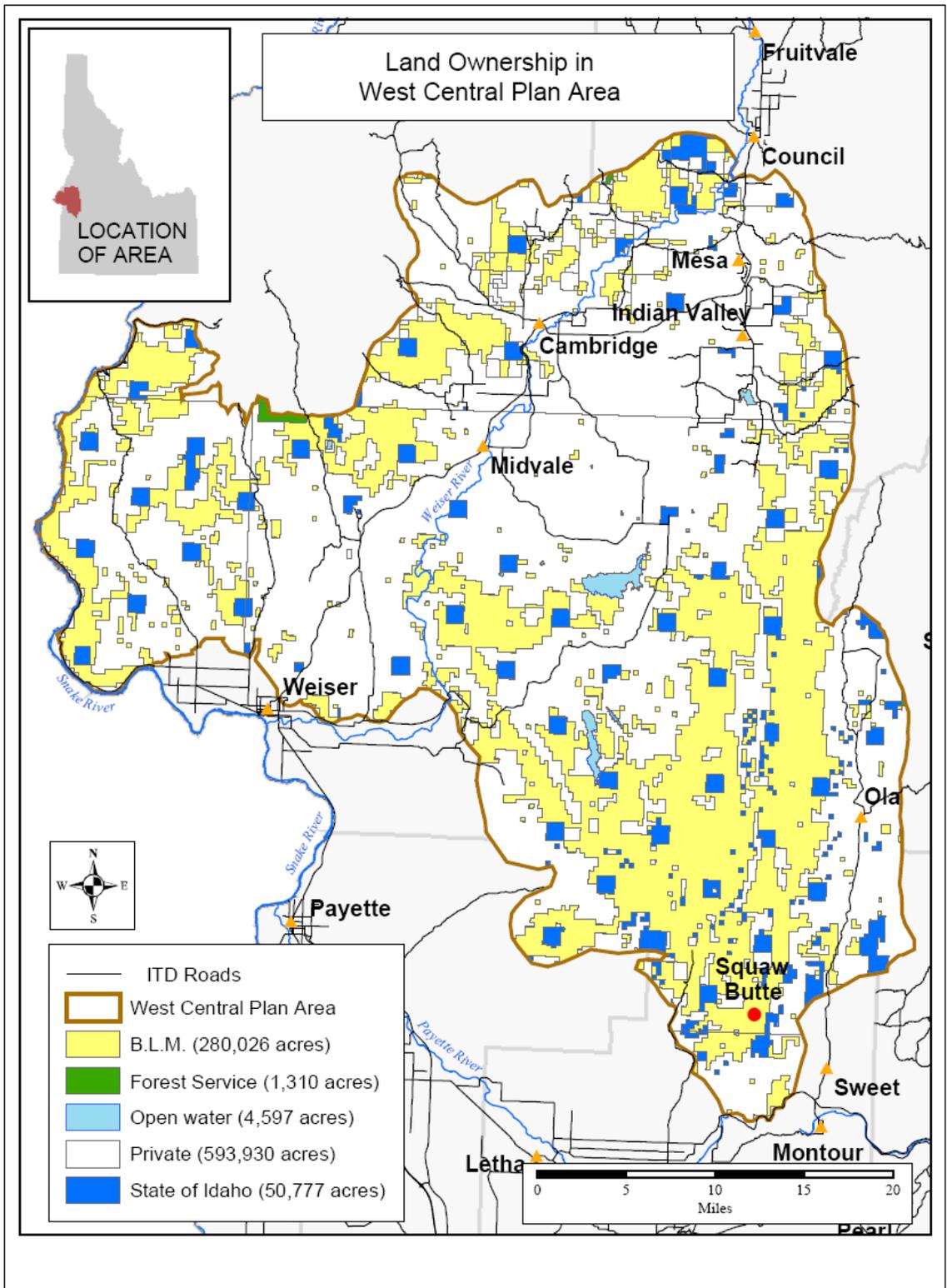


Figure 1. Location and land ownership of the West Central Planning Area (Source: Access Idaho GIS Database).

Activities that are proposed to be covered under the Agreement include: range and livestock management, farming operations, recreational activities, and general ranch operation and maintenance. These activities are described in more detail in Section 5 of the Agreement. The Permit would include regulatory assurances under the ESA as described in the Service's Candidate Conservation Agreement with Assurances Final Policy (64 FR 32726). Application requirements and issuance criteria for Enhancement of Survival Permits through Candidate Conservation Agreements with Assurances are found in 50 CFR 17.22(d) and 17.32(d).

Consistent with the Service's Candidate Conservation Agreement with Assurances Policy, the conservation goal of the Agreement is to encourage development and protection of suitable sage-grouse habitat on non-Federal lands by either maintaining or modifying existing land uses so that they are consistent with the conservation needs of sage-grouse. This conservation goal can be met with the use of a CCAA by giving non-Federal landowners incentives to implement conservation measures, primarily through regulatory certainty concerning land use restrictions that might otherwise apply should sage-grouse become listed under the ESA. This EA is intended to inform the public, and help the Service decide whether to accept the Agreement and issue the section 10 Permit pursuant to the ESA.

B. Need for the Proposed Action

The Greater sage-grouse is a wide-ranging species that currently occurs in 11 states and 2 Canadian provinces. However, the species' distribution and numbers have shown an overall decreasing trend (Connelly et al. 2004). Between 1999 and 2003 the Service received eight petitions to list various populations of the Greater sage-grouse under the Act. On January 12, 2005, the Service published a finding of that the species did not warrant protection under the Act (70 FR 2244-2282). The Service's "not warranted" finding was challenged in court, and in December 2007, Judge B. Lynn Winmill ordered the Service to reconsider our decision.

This history reflects the need for this Agreement in two ways: (1) sage-grouse populations are in need of conservation attention; and (2) sage-grouse will likely continue to be evaluated for protection under the ESA, thus increasing the real or perceived risk to non-Federal landowners who have sage-grouse populations or sage-grouse habitat on their private property.

In the WCPA specifically, sage-grouse populations are isolated, numbers are relatively low, and there is a high amount of annual grasslands, frequent wildfire, a large amount of private property, and a relative lack of connectivity with other sage-grouse populations in Idaho and Oregon. As such, the sage-grouse population in the WCPA was ranked first among 13 planning areas in Idaho in terms of risk of extirpation (IDFG 2006). In addition to those items listed above, the primary threats to sage-grouse in the WCPA, as described in the proposed Agreement, include: infrastructure development, livestock impacts, human disturbance, West Nile Virus, seeded perennial grassland, predation, development, insecticides, and sport hunting (accidental or poaching). Many of these threats can be

reduced or eliminated on private land through the development and implementation of site-specific species conservation plans. The proposed Agreement provides a mechanism through which the IDFG and the Service can provide incentives to non-Federal property owners to encourage participation in sage-grouse conservation. By implementing the proposed action, the IDFG, participating property owners, and the Service may be able to ensure long-term protection and persistence of sage-grouse in the WCPA by reducing threats and also reducing any long-term regulatory risk to landowners' abilities to continue compatible land uses.

C. Scoping and Issues

A variety of issues have been raised during the time that the Service, IDFG, the West Central Local Working Group, and the Bureau of Land Management began discussing sage-grouse conservation opportunities in the WCPA, and whether to issue a Federal Endangered Species permit to the IDFG associated with an Agreement to conserve sage-grouse. These issues included the following: landowner fears about certainty of future land use and potential restrictions if sage-grouse are listed under the ESA; evidence of continued declines in sage-grouse populations in the WCPA; lack of information pertaining to sage-grouse populations and habitat conditions in the WCPA; and protection of existing leks, nesting and wintering habitats.

D. Decisions to be Made by the Responsible Official

The Service will decide whether or not to approve the State of Idaho's proposed Candidate Conservation Agreement with Assurances, and issue a Permit in accordance with section 10(a)(1)(A) of the ESA, based on the Agreement as proposed or on the Agreement as further conditioned. To approve the Programmatic Agreement, the Service must find that:

Implementation of the Agreement and issuance of the Permit and any associated Certificates of Inclusion would provide conservation benefits to sage-grouse such that if similar measures were implemented across the range of the species it may eliminate the need to list the species in the future;

Take of sage-grouse authorized by the Permit (in the event that the species becomes listed in the future) would be incidental to otherwise lawful activities and would be in accordance with the measures described in the Agreement and associated site-specific plans;

Implementation of the Agreement and issuance of the Permit would not jeopardize the continued existence of the sage-grouse;

The Agreement complies with all other requirements of the Service's Candidate Conservation Agreement with Assurances Policy (USFWS 1999) and application requirements and issuance criteria for Enhancement of Survival Permits through Candidate Conservation Agreements with Assurances, found in 50 CFR 17.22(d) and 17.32(d).;

Implementation of the terms of the Agreement is consistent with applicable Federal, State, and Tribal laws and regulations;

The IDFG and participating property owners have shown the capability for and commitment to implementing all of the terms of the Agreement; and

Implementation of the terms of the Agreement will not be in conflict with any ongoing conservation programs for the species covered by the Agreement.

CHAPTER II: ALTERNATIVES

This environmental assessment analyzes three alternatives. These alternatives include Alternative A, No Action; Alternative B, Proposed Action; and Alternative C, Landowner by Landowner Alternative.

A. Alternatives Considered for Further Analysis

Alternative A-No Action Alternative. Under the “No Action” alternative, the proposed Agreement would not be implemented and a Permit would not be issued to the IDFG. Individual landowners could not enter into the Agreement and hence would not receive any incidental take authorization under the ESA. Land use activities in the WCPA would continue as in the past.

It is uncertain whether any major conservation actions for sage-grouse would be planned or implemented in the future under this alternative. Many of the most important sage-grouse habitats in the WCPA occur on private lands, and landowner attitudes and cooperation in sage-grouse conservation are important if meaningful conservation is to occur. The sage-grouse Local Working Group, as well as participation by some WCPA property owners in the Natural Resource Conservation Service’s Environmental Quality Incentives Program, provides some evidence that at least a limited number of landowners are willing to pursue sage-grouse conservation efforts in the absence of the proposed Agreement. However, the Service is concerned that if sage-grouse were found to be warranted for listing under the ESA, landowner concerns about potential land use restrictions could be a disincentive and ongoing sage-grouse conservation efforts could be hampered. Successful sage-grouse conservation in the WCPA will require active management on private lands; without landowner cooperation the prospects for meaningful sage-grouse conservation would be diminished.

Under the “No Action” alternative, sage-grouse populations would likely continue to persist in low numbers and many of the threats identified for the WCPA would continue. As a result it is expected that adverse affects to sage-grouse and their habitat would continue under this alternative with a subsequent reduction in the population and potential extirpation of sage-grouse in the WCPA.

Alternative B-Proposed Action Alternative. Under the “Proposed Action” alternative, the Programmatic Agreement would be approved, a Permit would be issued to the IDFG, and the Agreement would be implemented. The IDFG and Service would work together with interested landowners to enroll their properties by developing site-specific sage-grouse conservation plans. Landowners that have completed approved site plans would be issued Certificates of Inclusion under the IDFG Permit and would receive incidental take coverage for implementing agreed upon conservation measures. The IDFG would be the primary responsible party for coordinating all monitoring and reporting requirements of the Agreement and Permit. Under this alternative, conservation efforts for sage-grouse could be initiated on about 594,000 acres of private land and 51,000 acres of State lands within the WCPA.

The programmatic nature of the Agreement prevents us from describing exactly what conservation measures would be implemented through a site-specific plan. Each land-ownership varies regarding current and desired habitat condition, sage-grouse use, and land use and management. However, the Agreement presents a suite of conservation measures to address the various threats that may be encountered within the WCPA. The Agreement uses the Idaho State Conservation Plan for Greater Sage-Grouse (IDFG 2006) to describe the threats within the WCPA as well as potential conservation actions to reduce or eliminate those threats. Each of the threats that will be addressed through the implementation of site-specific plans and a full description of the possible conservation actions can be found in Table 5 of the Agreement.

Under the Proposed Action alternative, if a private landowner wishes to obtain a Certificate of Inclusion, the following activities must occur. Table 6 of the Agreement describes the steps envisioned for development and implementation of a site-specific plan and Certificate of Inclusion.

1. Completion of baseline habitat and threat assessment of their properties and land use as part of the site-specific plan and which identifies threats to sage-grouse that can be immediately addressed. This baseline habitat assessment may use BLM’s Sage-grouse Habitat Framework and/or other natural resource agency-accepted assessment methods.
2. Using information gathered from the baseline assessment, the existing habitat conditions will be compared to the habitat guidelines in the State Plan, and then classified based on whether that parcel provides suitable, marginal, or unsuitable, habitat for sage-grouse.
3. Development of a schedule of conservation actions and a timetable that will help achieve rangeland health standards and habitat objectives for individual pastures or other areas of the enrolled lands.
4. Development of monitoring sites and protocols on the desired enrolled lands.

Collectively, the completion of these activities will result in the development of a site-specific conservation and management plan. A landowner who wishes to participate in the

Agreement must work cooperatively with the Agencies during the habitat and threat assessment and the development of conservation actions, and must agree to implement all actions identified in their site-specific plan.

Alternative C-Landowner by Landowner Alternative. Under this alternative, the proposed programmatic Agreement would not be approved in its current form, but rather individual CCAA's or Agreements would have to be completed, approved, and a Permit issued on a case by case basis to each landowner interested in conserving sage-grouse. The landowner would receive ESA regulatory assurances from the Service as under the Proposed Alternative and any disruption of their land use activities would be minimal should the species be listed under the ESA.

Providing ESA regulatory assurances should reduce concerns over a potential listing and enhance landowner cooperation in sage-grouse conservation efforts. However, gaining these assurances under this alternative would require an individual agreement for each landowner. Such agreements are expensive and time consuming to produce for landowners, which increases the difficulty of developing them. Under this alternative, cooperative efforts with private landowners for conservation of sage-grouse could only occur on a landowner by landowner basis and this would likely result in less landowner participation than through the proposed action, which includes much of the costs and efforts in the initial development of the programmatic Agreement.

CHAPTER III: AFFECTED ENVIRONMENT

A. Greater Sage-grouse

Greater sage-grouse currently occur in eleven western states and two Canadian provinces (Schroeder et al. 2004). Throughout most of its range, the species is found at elevations ranging from 4,000 to over 9,000 feet. However, in the WCPA, the greatest portion of occupied grouse habitat appears to lie between 2,500 and 3,500 feet. The Greater sage-grouse has historically been and continues to be an important species across the western rangelands, as well as an important part of the sage-brush community that is sometimes used as a measure of sage-brush ecosystem health (Connelly et al. 2004).¹

Even though Greater sage-grouse have been monitored in Idaho since the 1950s, data on historical populations of sage-grouse in some areas of Idaho are not well documented. Prior to 1900, when the first sage-grouse hunting season was established in Idaho, sage-grouse were not protected. As early as the 1920s, wildlife managers voiced concern about the future of Idaho's sage-grouse populations. In a trend mirroring that seen in other western states, Idaho has experienced substantial alteration and loss of sage-brush steppe habitat since European settlement (IDFG 2006). Overall, from 1965-2003, Idaho's sage-grouse population declined at an average rate of 1.47 percent per year. The most dramatic decline occurred during 1965-1984, when the sage-grouse population declined by an average rate of 3.04 percent per year. Between 1985 and 2003, the average decline slowed to 0.12 percent annually. In general, Idaho sage-grouse numbers reached a low in the mid

1990's but have increased since that time (Connelly et al. 2004), although the status and trends of populations across the state vary greatly.

Three types of seasonal movement patterns have been described for Greater sage-grouse: (1) non-migratory: grouse do not make long distance movements [e.g., >10 km (6 mi) one way]; (2) one-stage migratory: grouse move between two distinct seasonal ranges; and (3) two-stage migratory: grouse move among three distinct seasonal ranges (Connelly et al. 2000). Monitoring of radio-collared birds shows that sage-grouse in the WCPA exhibit all three stages of migratory patterns, although the vast majority of monitored grouse seldom ventured more than two miles from the areas with established leks, even though they may travel farther from the actual lek where they mated. This would seem to indicate that most sage-grouse within the West Central Area generally are not migratory in nature.

During early March to mid-May, male sage-grouse gather at display grounds called leks. Using elaborate plumage displays and inflatable air sacs that produce a loud plopping sound, males attract females and protect their territory at the lek from other males. Leks are usually located on bare areas adjacent to stands of sage-brush. Many leks in the WCPA are found on old homestead sites and current livestock winter feeding areas. Most males and females remain within a mile of the leks during mating activities (Schroeder et al. 1999). Cocks establish territories on traditional strutting grounds in late February and early March, assembling on grounds an hour or so before dawn and strutting into the morning. Lek activity is greatest at the peak of hen attendance (last week of March in WCPA). The strutting display of sage-grouse has been described in detail by Scott (1942), Lumsden (1968), Wiley (1970) and Hartzler (1972).

Historic population data on sage-grouse in the WCPA is limited, although regular lek counts are a tool to estimate sage-grouse populations. However, for the WCPA, lek counts during the 1970s through the mid-1990s were reportedly sporadic. In addition, there has been no sage-grouse hunting season in the WCPA for more than twenty years. Thus, production data from hunters is also lacking. Surveys of active, historical and potential leks, or breeding grounds, were conducted between 1999 and 2001. Nineteen known leks were found active during that period and 42 additional leks were surveyed but no grouse were observed. Four lek routes were established by the IDFG in the late 1990s that provide data on 14 leks. A lek route is an established route among a number of known leks in close enough proximity that they can be observed by one observer in a single morning. Trained volunteers and IDFG staff monitor these lek routes on a regular basis using a prescribed protocol for counting the number of birds on each lek during the spring mating season. While data inconsistencies and the limited number of lek counts do not allow for definitive conclusions as to trends in the data for the WCPA, the population today appears to be significantly smaller than in the 1970s, based on the number of historic leks that are now unoccupied.

B. Other Wildlife and Fish

The covered area of the Agreement supports wildlife that depend on sage-steppe habitats, agricultural lands, and wetland/riparian sites. Many fish and wildlife species are considered generalists and can make use of a variety of habitat types, whereas other species, including sage-grouse, are considered specialists and have adapted to comparatively specific habitat requirements. Specialists often depend on just one, or perhaps a few different habitat types to supply their needs. The various habitat requirements of individual species can also shift between season and life stages. The fish and wildlife species found within the covered area represent this full array of assorted life history strategies and habitat requirements.

Shrub-steppe habitat types provide food, cover, and refuge for many wildlife species. In addition to sage-grouse, typical wildlife species that occur in these areas include sage thrashers (*Oreoscoptes montanus*), sage sparrows (*Amphispiza belli*), black-tailed jackrabbits (*Lepus californicus*), white-tailed jackrabbits (*Lepus townsendii*), pronghorn antelope (*Antilocapra americana*), elk (*Cervus canadensis*), and mule deer (*Odocoileus hemionus*). In areas with rocky outcrops or cliffs, bobcats (*Lynx rufus*), bushy tailed woodrats (*Neotoma cinerea*), rattlesnakes (*Crotalus viridis*), rock wrens (*Salpinctes obsoletus*), and golden eagles (*Aquila chrysaetos*) may also be present. In predominantly grassland areas, grasshopper sparrows (*Ammodramus savannarum*), long-billed curlews (*Numenius americanus*), loggerhead shrikes (*Lanius ludovicianus*), and burrowing owls (*Athene cunicularia*) may occur.

The agricultural lands within the covered area consist primarily of irrigated crop fields. Typical wildlife species that occur in the agricultural areas include Great Basin pocket mice (*Perognathus parvus*), deer mice (*Peromyscus maniculatus*), northern pocket gophers (*Thomomys talpoides*), striped skunks (*Spilogale putorius*), meadowlarks (*Sturnella neglecta*), horned larks (*Eremophila alpestris*), and barn swallows (*Hirundo rustica*). The southern Idaho ground squirrel (*Spermophilus brunneus endemicus*), a Candidate species under the ESA, can be found both in the shrub-steppe habitats and in the transition zones to the agricultural lands within the covered area.

Numerous avian, terrestrial, and aquatic species use the wetland and riparian habitats within the covered area. Typical species representative of these habitats include mallards (*Anas platyrhynchos*), Canada geese (*Branta canadensis*), redwinged blackbirds (*Agelaius phoeniceus*), beavers (*Castor canadensis*), and muskrats (*Ondatra zibethicus*).

Settlement of this area also had significant impacts on the assortment and relative abundance of certain upland species, such as the coyote and common raven, which have done well with the land use changes in the region and their populations have likely increased. A number of exotic species have also become established within the covered area, including ring-necked pheasants (*Phasianus colchicus*), starlings (*Sturnus vulgaris*), California quail (*Callipepla californica*), Hungarian partridge (*Perdix perdix*), Chukar partridge (*Alectoris chukar*), yellow perch (*Perca flavescens*), largemouth bass

(*Micropterus salmoides*), smallmouth bass (*Micropterus dolomieu*), and black crappie (*Pomoxis nigromaculatus*), and carp (*Cyprinus carpio*).

C. Land Ownership and Use

The lands to be covered under the proposed action include about 930,000 acres of mixed ownership in the West Central Sage-Grouse Planning Area and they occur in portions of Washington, Adams, Gem and Payette Counties, in west-central Idaho (see Figure 1). Within the 930,000 total acres, about 594,000 is privately held, and approximately 51,000 acres is held by the State of Idaho as State Endowment Lands, managed by the Idaho Department of Lands. The remaining acreage within the WCPA is Bureau of Land Management (280,000 acres), USDA Forest Service (1,300 acres), or open water (4,600 acres).

The WCPA is characterized by valley farmlands surrounded by extensive rolling hills of sagebrush-grassland and mountain foothills. Elevations range from about 2070 feet at the Snake River near Brownlee Reservoir to slightly over 4000 feet at Sugarloaf Peak and the southern Payette National Forest boundary. The greatest portion of the area and of occupied grouse habitat lies between 2500 feet and 3500 feet elevation. Mean annual precipitation is about 11 inches at lower elevations near Weiser but rises quickly with elevation to over 20 inches over much of the planning area.

The WCPA is predominantly rural in nature and the populations of Midvale, Cambridge, and Indian Valley (areas of highest sage-grouse numbers) have not grown substantially in recent years. However, the rural nature, recreation opportunities, and geographic proximity to larger population centers have resulted in an increase in land speculation and property development, fragmenting the formerly expansive rangeland and agricultural landscapes.

Prior to settlement and development of agricultural lands within the covered area, the entire area likely consisted of native shrub-steppe habitats. Some of the original native habitats within the covered area have been converted for various uses, including agricultural. Most of the remaining undeveloped land within the covered area is subject to a variety of other human influences, including livestock grazing, recreation, altered fire frequencies, and exotic species invasion. Land ownership within the covered area is described in Table 1.

| Owner/Managing Agency | Acres | Percent |
|---------------------------|---------|---------|
| Private | 593,930 | 63.8 |
| Bureau of Land Management | 280,026 | 30.1 |
| Forest Service | 1,310 | 1.4 |
| State Endowment Trust | 50,777 | 5.5 |
| Open Water | 4,597 | 0.5 |
| Total | 930,640 | 100 |

Table 1. Land ownership within the WCPA.

D. Vegetation

Table 2 below describes the vegetative cover types found in the WCPA, and is derived from USGS Shrubmap data and the GIS analysis for the Agreement. Xeric big sagebrush is the most common and widely distributed type of sagebrush found in the WCPA with potential understories of Thurber needlegrass (*Achnatherum thurberianum*), Sandberg bluegrass (*Poa secunda*), and/or bluebunch wheatgrass (*Pseudoroegneria spicata*). Basin big sagebrush (*Artemisia tridentata tridentata*) with a potential understory of Basin wildrye (*Leymus cinereus*) or bluebunch wheatgrass can occur throughout the area on deeper soils of stream terraces or “run-in” sites that receive additional moisture from overland flow. Mountain big sagebrush (*Artemisia tridentata vaseyana*) with a potential understory of bluebunch wheatgrass and Idaho fescue (*Festuca idahoensis*) occurs in a limited extent at higher elevations. Low sagebrush communities largely with an understory of Sandberg bluegrass and various early season forbs occur on shallow soils scattered throughout much of the WCPA.

Major Vegetative Cover Types, Land Uses, West Central Planning Area

| <u>Cover Type, Native Vegetative Communities</u> | <u>Acres</u> | <u>Percent of WCPA</u> |
|--|--------------|------------------------|
| Columbia Basin Foothill and Canyon Dry Grassland | 25,642 | 3.7 |
| Columbia Plateau Scabland Shrubland | 59,115 | 8.5 |
| Columbia Plateau Steppe and Grassland | 176,456 | 25.2 |
| Evergreen Forest | 14,271 | 2.0 |
| Inter-Mountain Basins Big Sagebrush Shrubland | 129,696 | 18.6 |
| Inter-Mountain Basins Big Sagebrush Steppe | 157,815 | 22.6 |
| Inter-Mountain Basins Montane Sagebrush Steppe | 79,138 | 11.3 |
| Recently Burned | 12,031 | 1.7 |
| Riparian | 32,209 | 4.6 |
| Other | 12,686 | 1.8 |
| Total | 699,059 | 75.1 |
| | | |
| <u>Cover Type, Land Uses, Altered Portions</u> | | |
| Agriculture | 114,666 | 49.4 |
| Invasive Annual Grassland | 115,762 | 49.9 |
| Other | 1,783 | 0.8 |
| Total | 232,210 | 24.9 |

Table 2. Vegetative Cover and Land Uses (USGS Shrubmap and GIS analysis, 2007).

Stiff sagebrush sites are interspersed with xeric big sage sites throughout much of the area. They are extremely low producing in annual biomass, generally with a sparse understory of Sandberg bluegrass and forbs. Soil saturation during the early spring, followed quickly by complete drying, leads to low overall productivity, but these sites often have a high composition of early season forbs.

E. Recreation

Numerous forms of recreation occur within the boundary of the proposed action area. Hunting, bird watching, photography, OHV and snowmobile riding, horseback riding, horn hunting, commonly occur throughout the area on both Federal and non-Federal lands. Many of these activities occur on lands that provide suitable nesting, brood rearing, or wintering habitat for sage-grouse.

CHAPTER IV: ENVIRONMENTAL CONSEQUENCES

The following analysis considers the potential positive and negative environmental effects of implementing the no action and the two action alternatives. Table 3 summarizes the impacts of these alternatives on the affected resources. Resources that would not be affected with regard to the three alternatives, and therefore are not further addressed in this EA, include air quality, water quality and quantity, fisheries, geology and soils, visual resources, and cultural resources.

A. Sage-Grouse and Other Wildlife

No-Action Alternative

Under the No-Action alternative we anticipate sage grouse populations would continue to decline and the threat of extirpation would increase. Since current land uses and activities are expected to continue under this alternative, the threats identified in the statewide plan for the covered area would also continue. Without the ESA regulatory assurances provided under the Agreement, it is unlikely that landowners would have sufficient incentive to conserve the Greater sage-grouse. In fact, it is more likely that this alternative would reduce participation in the ongoing conservation efforts occurring for sage-grouse due to fear that additional restrictions on land use could occur if Federal listing occurs and landowners attract sage-grouse to their properties. As a result some landowners may adopt practices to discourage sage-grouse from occupying their lands.

It is also anticipated that negative effects to other wildlife species that depend on sage/shrub habitats, including sensitive species, would also continue under this alternative. In general, many of these species would continue to be negatively effected by the conversion of native shrub/steppe habitat, expansion of exotics, continued fragmentation of existing habitat, maintenance of habitat in degraded condition, etc. Negative changes in vegetative cover and species composition would continue as a result of fire and human actions and would adversely affect other wildlife species that depend on sage/shrub habitats, particularly those changes causing increases in exotic annuals. Thus, the “No Action” alternative would be detrimental to long-term sage-grouse conservation, as well as other species that depend on shrub/steppe habitat.

Proposed Action Alternative

Under the Proposed Action alternative, the Programmatic Agreement would be approved, a Permit would be issued to IDFG, willing non-Federal property owners would participate by enrolling their lands under the Agreement through the development of a site specific plan, and IDFG would issue the participating property owner a certificate of inclusion, authorizing a limited amount of incidental take of sage-grouse.

The Service anticipates that negative effects to sage-grouse under the Proposed Action alternative would be minimal and implementation of the Agreement would be primarily beneficial. Sage-grouse historically were found on non-Federal lands throughout the proposed action area, however current populations continue to decline. The WCPA population of sage-grouse has been identified in the State Plan as the most likely to be extirpated in Idaho, therefore non-Federal lands fulfill a vital need for the recovery of sage-grouse. Hence enrollment of these lands under the Agreement is critical for sage-grouse recovery within the WCPA. Without this cooperation, the potential for successful conservation of sage-grouse is greatly diminished while the potential for future listing would be increased.

The conservation measures identified in the Agreement are specific to the known threats to sage-grouse identified in the Statewide plan and which are specific to the WCPA. Participating property owners would implement a variety of conservation measures designed to reduce those threats on sage-grouse on all or portions of their enrolled lands as identified in their site specific plans. These measures could include but are not limited to: 1) agency access; 2) habitat maintenance or enhancement; 3) restoration of habitats with native species that are currently dominated by exotics; 4) creating firebreaks to protect existing habitat from wildfire, 5) various types of grazing management; 6) protection of leks; and 7) conservation easements or other non-development agreements.

Activities that would be implemented under the Agreement are not expected to result in adverse effects to other wildlife species and it is anticipated that beneficial effects would occur for species that rely on similar habitats as sage-grouse, specifically in the shrub-steppe community and within riparian areas.

Given the likelihood of landowner participation and implementation of conservation actions to benefit sage-grouse and other shrub/steppe species, this alternative is anticipated to provide more conservation benefit than the No-Action alternative.

Landowner by Landowner Alternative

Landowners that develop individual CCAA's or agreements and receive individual enhancement of survival permits would be required to implement conservation actions similar to the Proposed Action alternative. Although it is anticipated that less participation would occur under this alternative relative to the Proposed Action alternative, efforts to conserve sage-grouse and shrub/steppe habitat would occur at a greater rate compared to the No Action alternative. Hence this alternative would be more beneficial to sage-grouse

and other wildlife species than the No-Action alternative, but not as beneficial as the Proposed Action because of the increased difficulty in developing individual agreements .

B. Land Ownership and Use

No Action Alternative

Non-Federal landowners and grazing permittees have expressed concerns that grazing practices and stocking rates could be affected, as well as the risk of additional land use restrictions, on both Federal and private lands if the sage-grouse is listed under the ESA. They have also indicated that some existing land use activities could be affected on private lands should the “take” prohibitions under section 9 of the ESA occur. Should the Greater sage-grouse be listed, landowners would have to avoid “take” of the species in accordance with section 9 of the ESA and landowners that propose to conduct activities likely to adversely affect the species would be required to obtain an incidental take permit prior to initiating the proposed activity. There are two methods of obtaining an incidental take permit in this situation: to complete section 7 consultation (pursuant to the ESA) with the Service through a Federal nexus agency (the agency that funds, permits, or authorizes their project), or to complete a habitat conservation plan with the Service. The effects to local communities and economies of such a listing is unknown at this time due to the potential variation in take avoidance measures that would be implemented if the species is listed in the future. However due to the large amount of land that sage-grouse both historically and currently occupy, any listing of sage grouse would most likely have negative impacts on the economies of local communities.

Proposed Action Alternative

Under the Proposed Action alternative, the likelihood of listing the species under the ESA would be minimized to a greater extent than the other alternatives, assuming a greater number of landowners would participate and implement conservation measures that would help prevent the need to list the species. Providing ESA regulatory assurances to participating landowners should provide for greater certainty for these landowners to operate their businesses and provide for some level of economic stability compared to the No-Action alternative. Also, since IDFG would be issued a permit and would be responsible for many of the actions under the Agreement, landowner expense to participate in conserving the sage-grouse would be lower, increasing the likelihood of participation. There is the potential that enhancement of sage-grouse and sage brush habitats will increase the population of sage-grouse, thus increasing the likelihood that sage-grouse could show up on adjacent, non participating lands. This could cause hardship on some non-participating landowners if the sage-grouse is listed, however not to the extent of the no action alternative.

If sage-grouse were to become listed under the ESA, the Proposed Action alternative would have a beneficial effect on the socioeconomic values of the action area because participating landowners would be provided assurances under the ESA and would not be liable for adverse effects to sage-grouse associated with their ongoing operations.

Landowners would also be provided certainty about potential conservation requirements, allowing for future planning and minimizing expenditures or operation changes in the future to accommodate sage-grouse conservation needs. Thus, the potential for negative impacts to landowners and local economies would be less under this alternative compared to the No-Action.

Landowner by Landowner

Implementation of similar conservation measures for the sage-grouse under individual landowner Agreements would occur under this alternative which may reduce the likelihood of the species being listed. Hence, providing ESA regulatory assurances to participating landowners would provide more certainty and economic security than the No Action alternative. However, due to limited agency staffing to process individual agreements, the rate of approving these agreements would be less than the proposed action, thus reducing enrolled landowners which in turn could increase uncertainty and the responsibilities landowners might face if the species is listed in the future. Thus, the potential for negative impacts to landowners and local economies would be less under this alternative compared to the no action but more than what would be expected under the Proposed Action alternative.

C. Vegetation

No-Action Alternative

Under the No-Action Alternative, current land uses would continue and maintenance or enhancement of sage/shrub habitat would be limited. Fragmentation of existing native sage/shrub habitats would continue, which in turn would further isolate existing populations of sage-grouse and other wildlife species that depend on these habitat types. Habitat would continue to be converted for other uses, use of native species to restore disturbed sites would be less likely to occur, exotic species would continue to expand and dominate historic sage/shrub sites, and these lands would continue to be maintained in a degraded condition. Plant species would be affected by ground disturbing activities that directly harm individuals or alter the species' habitat. Changes in vegetative cover and species composition would continue to be shaped by fire and human actions. Similarly, riparian vegetation would continue to be affected by land use activities that occur within riparian areas.

Proposed Action Alternative

Participating property owners that choose to participate in the Agreement and sign site specific agreements specific to their enrolled lands would implement various measures that would enhance or maintain vegetative conditions throughout the term of the Agreement. This would include both sage/shrub habitats, as well as riparian habitats which can be important brood-rearing habitats for sage-grouse. Enhancement or active management efforts would be designed to increase or protect key vegetative species such as sage brush and forbs as well as maintaining existing shrub/steppe habitat, which is essential for sage-

grouse. The use of native species and certified weed free seed for restoration activities is also a conservation measure, increasing the likelihood that native species will be reestablished on enrolled lands. There is also potential for some landowners to place conservation easements or other non-development type agreements which would provide certainty that critical sage/shrub communities will not be lost to development or other uses. Hence, it is anticipated that native vegetative communities are not only more likely to persist in the action area but also will be enhanced or restored under the Proposed Action alternative compared to the No-Action alternative.

Landowner by Landowner Alternative

Landowners that develop individual agreements and receive individual enhancement of survival permits would be required to implement conservation actions similar to the Proposed Action alternative. Although it is anticipated that less participation would occur under this alternative relative to the proposed, efforts to maintain, enhance, and restore existing sage/shrub and riparian habitat through maintenance or enhancement would occur at a greater rate compared to the No Action Alternative.

D. Recreation

No Action Alternative

As a result of a growing human population, recreational activity levels are expected to increase. Without specific agreements in place to avoid incompatible recreational use levels, increased human recreational uses such as off-road use of OHVs, snowmobiles, lek disturbance, and accidental or poaching losses will likely increase mortality levels in sage-grouse.

Proposed Action Alternative

Under the Proposed Action alternative there will be greater potential for control of recreational activities at levels that minimizes conflicts with sage-grouse. Landowners, through education, monitoring, and cooperation with adjacent landowners, would have greater potential to reduce threats and take associated with unauthorized recreational activities. Hence we anticipate less impact to sage grouse from recreational activities under this alternative compared to the No Action.

Landowner by Landowner Alternative

It is unlikely that any additional recreational impacts would occur under this alternative relative to the No Action alternative. However, since we anticipate some landowners will develop their own CCAA and implement conservation measures addressing recreational impacts, we would expect less impact from recreation under this alternative compared to the No Action, but more impact than the proposed action due to less landowner participation.

Summary and Comparison of Alternatives

A summary and comparison of the resources potentially affected under the action alternatives are provided in the following table.

| Resources Affected | No-Action Alternative | Proposed Action Alternative | Landowner by Landowner Alternative |
|------------------------------------|--|--|--|
| Sage-grouse and other wildlife | Continuing decline in sage-grouse and other wildlife that depend on sage/shrub steppe habitat. | Likely to maintain or increase quantity, quality, and availability of suitable habitat for sage-grouse and other wildlife species. Potential for conservation easements to be placed on important habitats that would benefit sage-grouse and other wildlife species. | Likely to maintain or increase quantity, quality, and availability of suitable habitat but due to less participation not to the extent of the Proposed alternative. Potential for conservation easements to be placed on important sage grouse habitat. |
| Vegetation | Continuing decline in sage/shrub habitat due to conversion for other uses such as exurban development, crop production, etc. Little potential for restoration using native species. | Likely to maintain or increase sage/shrub habitat. Native species would benefit with the goal of restoring habitats dominated by exotics. Anticipate a decline in conversion of existing sage/shrub habitat. | Likely to maintain or increase sage/shrub habitat but at a slower rate. Native species would benefit. |
| Recreation | Increased negative impacts anticipated. | Increased monitoring, enforcement, and education which will reduce the risk of unauthorized take. | Potential for increased monitoring, enforcement, and education. |
| Socioeconomic and land use effects | Increased potential for listing which may pose economic hardship on some landowners. | Reduced likelihood of listing. Provide regulatory certainty to participants that no additional restrictions would be placed on their lands if sage-grouse become listed. | Reduced likelihood of listing. Provide regulatory certainty to participants that no additional restrictions would be placed on their lands if sage-grouse become listed. Likely fewer participants than proposed alternative. |

Table 3. Summary and Comparison of Alternatives

E. Cumulative Effects

Cumulative effects to the environment result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

The cumulative impacts of the activities proposed to occur within the scope of this EA vary little between the action alternatives. The differences primarily relate to the degree of participation and implementation of the conservation measures on the enrolled lands. Hence, this analysis focuses on the implementation of the Agreement.

Because the boundaries of individual enrolled lands cannot be delineated at this time, it is not possible to develop a meaningful description of the nature or scope of future non-Federal actions that may occur within the action area. Certainly there will be numerous activities ongoing or that would occur in the future, however the locations and activities of enrolled landowners would not be known until the Permit is issued and willing participants enroll under the Agreement. While there is no way to predict the distribution or total acreage of lands enrolled during the term of Permit, IDFG would not issue any Certificates of Inclusion to any non-Federal landowner that may have intentions of developing their property or take any other known action that would compromise the ongoing conservation efforts for sage-grouse. Consequently we do not believe that any non-Federal actions that may occur in the future under this Agreement would have a negative impact on the success of other ongoing or future conservation efforts. However it is conceivable that non-Federal actions on properties not enrolled under the Agreement could impair or impede the degree of overall Agreement success if located adjacent to enrolled properties. Since there is no credible method to estimate the level of development or conversion of critical habitats during the term of the Permit, we must rely on implementation of the Agreement and associated conservation measures to minimize and avoid adverse impacts at this time.

The BLM manages a substantial amount of land within the covered area and these lands fall under the jurisdiction of the Four Rivers Field Office, Boise District. Land is currently managed under the 1987 Cascade Resource Management Plan; however, a new Resource Management Plan is in the development phase and is expected to be completed by 2012. The Resource Management Plan guides land use within the planning area, and also identifies resource criteria which must be met for BLM actions to be consistent with their planning documents.

In the WCPA, most of the land use on BLM lands is characterized by rangeland grazing, primarily with cattle and sheep. Planning criteria have been developed to help the development of the Four Rivers Resource Management Plan and include legal, regulatory, and policy authorities to help guide decision making. Through the planning process, specific use and management decisions will be made regarding the following resources and land uses: air quality, water quality, vegetation management, noxious weed control, visual resources, cultural resources, special status species, fish and wildlife, fire management,

livestock grazing, recreation, trails and travel management, lands and realty, energy and minerals, special designations, and riparian areas, flood-plains, and wetlands. The planning process could result in changes to land use in the WCPA that could either adversely or beneficially impact sage-grouse.

The BLM's existing management plan for the Cascade district is not expected to conflict with the proposed action. Many landowners who may choose to participate in the proposed action are also involved with BLM's land use management, mostly by holding livestock grazing permits. We expect that these individuals will work cooperatively with BLM, IDFG, and the Service to ensure that their land use management practices benefit sage-grouse across their private and Federal permitted lands.

Various Federal and non-Federal entities have developed and implemented conservation measures for sage-grouse across the State of Idaho. In 2006, the IDFG, in coordination with many other agencies, organizations, and private individuals, produced the Conservation Plan for Greater Sage-Grouse in Idaho. In coordination with this Plan, a State Sage-Grouse Advisory Committee has been actively working with individuals and entities around the State to develop conservation actions and improve existing knowledge of the species and its habitat preferences around the state. All of the land and wildlife management agencies participate on the State Advisory Committee, and many of them have taken steps to improve habitat conditions for sage-grouse, or to more clearly evaluate the potential effects of agency actions on sage-grouse. These actions and efforts are consistent with the purpose of the proposed action.

The Intergovernmental Panel on Climate Change (IPCC) has concluded that warming of the climate is unequivocal and that continued greenhouse gas emissions at or above current rates will cause further warming (2007, p.5). The IPCC also projects that there will very likely be an increase in the frequency of hot extremes, heat waves, and heavy precipitation (2007, p. 15). A few studies have developed models in attempt to predict the impact of climate change on sage-brush communities (e.g., Shafer et al. 2001), or on the potential influence of climate on cheatgrass distribution (Bradley in press). However, our ability to determine the potential implications of these climate predictions at a smaller spatial scale is limited. The Service is currently developing interim guidance regarding relevant aspects of the Endangered Species Act implementation involving climate change, with a focus on how to evaluate and include the best available scientific information in our decision-making. The Service (2008) stated in the "Greater Sage-Grouse Interim Status Update" that "conclusions regarding the direct or indirect effects of climate change" on sage-grouse are "uncertain at this time" (p. 207). The proposed action anticipates climate change in the context of adaptive management, and envisions that the IDFG, the Service, and property owners will evaluate changes in habitat parameters for sage-grouse as they occur over the term of the proposed Agreement and Permit implementation. In light of noticeable habitat changes associated with climate change that shift the baseline habitat condition or the status of the species in the project area, the Service will assess the potential need for amendments or will re-evaluation the adequacy of the terms of the Permit and Agreement.

The purpose of this cumulative effects analysis is to assess whether the proposed action, when combined with other past, present, and future actions, has a significant effect on the human environment. In this case the proposed action would be beneficial to the sage-grouse, except for a minimal amount of incidental take. Consequently while some actions will cause adverse impacts to sage-grouse or their habitat, implementation of the proposed action will reduce the overall cumulative impacts occurring to the covered species.

Chapter V: COORDINATION AND PREPARATION

Preparation of this EA was coordinated with IDFG and OSC.

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