DRAFT ENVIRONMENTAL ASSESSMENT

PROPOSED DESIGNATION OF CRITICAL HABITAT FOR GUNNISON SAGE-GROUSE (*Centrocercus minimus*) IN COLORADO AND UTAH

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Introduction

The U.S. Fish and Wildlife Service (Service) is proposing to designate critical habitat for Gunnison sage-grouse (*Centrocercus minimus*) (hereafter, GUSG) in Colorado and Utah, as required by section 4 of the Endangered Species Act of 1973, as amended (ESA). On January 11, 2013, we proposed to list the GUSG as endangered (78 FR 2486) and to designate critical habitat for the species (78 FR 2540). In total, we proposed approximately 689,675 hectares (ha) (1,704,227 acres (ac)) for designation as critical habitat in Chaffee, Delta, Dolores, Gunnison, Hinsdale, Mesa, Montrose, Ouray, Saguache, and San Miguel Counties in Colorado, and in Grand and San Juan Counties in Utah.

Critical habitat designation is required by the ESA for listed species. This Draft Environmental Assessment presents the purpose of and need for the critical habitat designation, the proposed action and alternative action, and an evaluation of the direct, indirect, and cumulative effects of the alternatives pursuant to the requirements of the National Environmental Policy Act of 1969 (NEPA) as implemented by the Council on Environmental Regulations (40 CFR 1500, et seq.) and according to the U.S. Department of Interior NEPA regulations (43 CFR part 46) and procedures. We will use this Draft Environmental Assessment to help decide whether critical habitat will be designated as proposed, if the proposed action requires refinement, or if further analysis is needed through preparation of an Environmental Impact Statement (EIS).

1.0 Purpose for the Proposed Action

The purpose of the proposed action is to designate critical habitat for GUSG in Colorado and Utah by utilizing provisions of the ESA. The purpose of the ESA is to conserve the ecosystem upon which threatened and endangered species depend. Critical habitat designation identifies areas that contain the physical and biological features essential to the conservation of this species and that may require special management or protection. The designation of critical habitat also describes the physical and biological features essential to the conservation of the species, which are identified as the Primary Constituent Elements (PCEs).

2.0 Need for the Action

The need for this action is to comply with section 4 of the ESA, which requires that critical habitat be designated for endangered and threatened species unless such designation is not prudent. A proposed rule published on January 11, 2013 (78 FR 2486) proposed listing the GUSG as endangered throughout its range. A proposed rule to designate critical habitat (78 FR 2540) was published on the same date.

When the range of a species includes States within the Tenth Circuit, pursuant to the Tenth Circuit ruling in Catron County Board of Commissioners v. U.S. Fish and Wildlife Service, 75 F .3d 1429 (10th Cir. 1996), we will complete an analysis pursuant to NEPA on critical habitat designations. The current range of this species is in Colorado and Utah, which are both within the Tenth Circuit.

Critical habitat is one of several provisions of the ESA that aid in protecting the habitat of a listed species until populations have recovered and threats have been minimized so that the species can be removed from the list of threatened and endangered species. Critical habitat designation is intended to assist in achieving long-term protection and recovery of this species and the ecosystem upon which it depends. Section 7(a)(2) of the ESA (50 CFR §402.13) requires consultation for Federal actions that may affect critical habitat to avoid destruction or adverse modification of this habitat. Further explanation of critical habitat and its implementation is provided below.

Below we summarize the life history, habitat characteristics, and threats for the GUSG. For further analysis, please see our 12-month finding published September 28, 2010 (75 FR 59804) and proposed listing rule published January 11, 2013 (78 FR 2486). For further descriptions of how we used life history and habitat characteristics to determine the essential physical and biological features for the GUSG, please see our proposed critical habitat designation published January 11, 2013 (78 FR 2540).

2.1 Background

The GUSG differs from the closely related greater sage-grouse (*Centrocercus urophasianus*) in morphological measurements, plumage, courtship display, and genetics (Young *et al.* 2000, p. 444). However, the two species have similar life histories and habitat requirements (Gunnison Sage-grouse Rangewide Steering Committee 2005, pp. 22–23). In this Draft Environmental Assessment we use information specific to the GUSG when it is available, but we also cite greater sage-grouse references when information specific to GUSG is lacking.

2.1.1 Species Description

The GUSG is a member of the Phasianidae family. For many years, GUSG and greater sage-grouse were considered a single species; however, in 2000, the GUSG was identified as a distinct species (Young *et al*. 2000, pp. 447–448). The current ranges of the two species of sage-grouse do not overlap (Schroeder *et al*. 2004, p. 369). The GUSG is dark brown with black underparts; breeding plumage in males includes ornamental feathers along the base and sides of the neck that are lost after breeding; tails are coarsely barred brown with prominent white to yellow-white bars; and females are smaller than males (Young *et al.* 2000, pp. 447–448). It is a large species of grouse known for an elaborate mating ritual where males congregate on strutting grounds called leks and "dance" to attract a mate (Gunnison Sage-grouse Rangewide Steering Committee 2005, p. 22).

2.1.2 Distribution, Abundance, and Trends

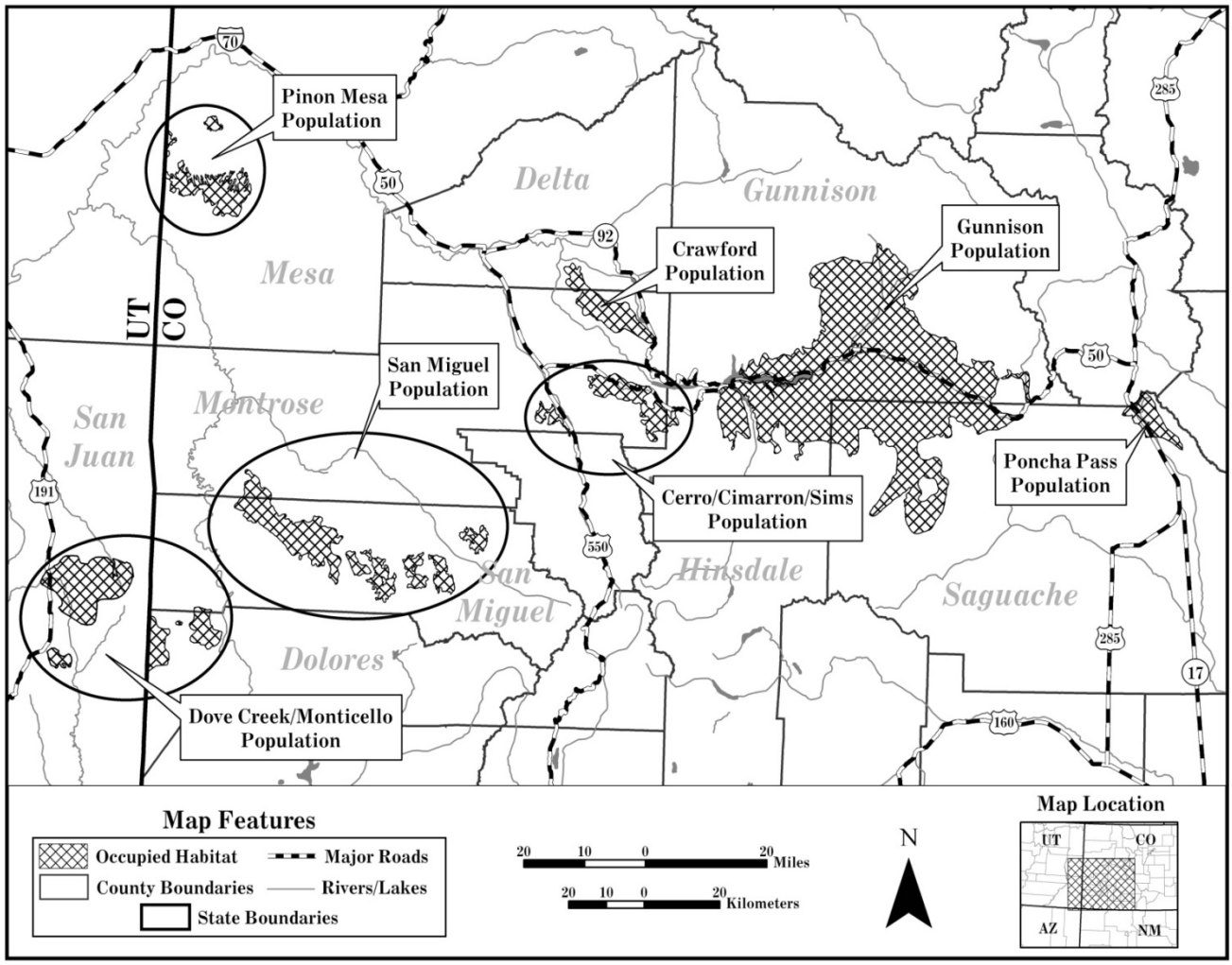
Distribution

Based on museum specimens, published observations, and pre-settlement distribution of potential habitat, the GUSG is believed to have historically occurred in central and southwestern Colorado, southeastern Utah, northwestern New Mexico, and northeastern Arizona (Young *et al.* 2000, p. 448; Schroeder *et al*. 2004, p. 370). The Gunnison Sage-grouse Rangewide Steering

Committee refined the likely historical range of the GUSG, estimating 55,350 square kilometers (km²) (21,370 square miles (mi²)) in the same four States (Gunnison Sage-grouse Rangewide Steering Committee 2005, p. 32). However, Arizona Game & Fish Department notes that there are no published records of GUSG in northeastern Arizona and questions whether Arizona was part of the species' historical range (Riley 2013, pp. 1–2). There are no estimates regarding the portion of historical range that was occupied at any given time or regarding historical population numbers.

The current range of the GUSG includes southwestern Colorado and southeastern Utah. Occupied habitat within the current range includes seven widely scattered populations encompassing approximately 3,795 km² (1,511 mi²) in Colorado and Utah. This represents approximately seven percent of the species' historical range. The seven populations are: Gunnison Basin, San Miguel Basin, Monticello-Dove Creek, Piñon Mesa, Crawford, Cerro Summit-Cimarron-Sims Mesa, and Poncha Pass (Figure 1).

Figure 1. Current locations of GUSG populations



Abundance

The current size of GUSG occupied habitat and current population estimates are presented in the following table.

Table 1. Current estimates of occupied habitat and abundance for each population

Population	Occupied Habitat		2012 Population Estimate
Gunnison Basin	239,953 ha	592,936 ac	4,082
San Miguel Basin	41,022 ha	101,368 ac	172
Monticello-Dove Creek (combined) • Monticello • Dove Creek	45,275 ha 16,706 ha 28,569 ha	111,877 ac 41,282 ac 70,595 ac	147
Piñon Mesa	15,744 ha	38,904 ac	54
Cerro Summit-Cimarron-Sims Mesa	15,039 ha	37,161 ac	54
Crawford	14,170 ha	35,015 ac	98
Poncha Pass	8,262 ha	20,415 ac	15
Total	379,465 ha	937,676 ac	4,622

Trends

GUSG population trends over the last 12 years indicate that the largest population—Gunnison Basin—has been relatively stable. The Gunnison Basin population encompasses 63 percent of all occupied habitat and 88 percent of the current total population. The other six populations represent 37 percent of all occupied habitat and 12 percent of the current population and are in varying degrees of decline. The population dynamics of the six smaller populations may be very different from the Gunnison Basin population (Davis 2012, p. 2).

2.1.3 Life History and Habitat Requirements

Both species of sage-grouse have an obligate relationship with sagebrush (*Artemisia* spp.) (Hupp and Braun 1991, p. 255; Beck *et al.* 2003, p. 203; Crawford *et al*. 2004, p. 2; Schroeder et al. 2004, p. 366). GUSG require large, contiguous areas of sagebrush for their long-term persistence and exhibit a high site fidelity to all seasonal habitats. Habitat requirements for GUSG differ by season. The Gunnison Sage-grouse Rangewide Steering Committee (2005, pp. 27–31) categorized habitat for the species as follows.

- Breeding habitat (leks, nesting, and early brood-rearing): GUSG typically utilize the same leks from year to year. Leks are typically small open areas adjacent to sagebrush and are usually not a limiting habitat feature. Good nesting habitat requires sagebrush with sufficient canopy cover as well as substantial grasses and forbs in the understory. Early brood-rearing habitat is similar to nesting habitat and may include riparian areas.
- Summer-Fall habitat: As sagebrush communities dry, GUSG begin to concentrate in larger flocks and may use atypical habitat such as agricultural fields. From mid-

September into October both species of sage-grouse move into areas with more dense sagebrush (more than 15 percent canopy cover).

- Winter habitat: Winter weather events trigger movement into habitat where sagebrush remains exposed above snow.

High rates of adult survival of sage-grouse are offset by low rates of juvenile survival (Crawford *et al*. 2004, p. 2). Demographic parameters for GUSG, including clutch size (6.8 eggs), likelihood of nesting (75.7 percent), nest success of at least one egg hatching (43.2 percent), and annual reproductive success—probability of a female hatching at least one egg in a season (35.1 percent)—were all lower than the same parameters for greater sage-grouse (Crawford *et al.* 2004, p. 4).

2.1.4 Threats

The following discussion of threats summarizes information presented in the proposed rule to list the Gunnison sage-grouse (78 FR 2486, January 11, 2013).

Present or threatened destruction, modification, or curtailment of habitat or range

Fragmentation of sagebrush habitat is a primary cause of the decline of GUSG populations. Loss of habitat due to residential and road development is considered the principal current and future threat to all GUSG populations. Habitat degradation associated with improper livestock grazing practices is also a threat to GUSG habitat. Other current impacts to habitat including fences, powerlines, fire, invasive species, piñon-juniper encroachment (typically, *Pinus edulis* and *Juniperus* spp.), and climate change/drought can collectively contribute to habitat loss. Historically, 93 percent of GUSG habitat was lost due to conversion to croplands; however, conversion has slowed or even slightly reversed in recent decades and is not considered a current or future threat. Renewable and non-renewable energy development were not considered threats to GUSG habitat in the proposed rule; however, based on comments received during the public comment period, renewable and nonrenewable energy may be a threat to the Monticello-Dove Creek and San Miguel populations.

Overutilization for commercial, recreational, scientific, or educational purposes

Hunting of GUSG is currently not legal and is not considered a threat. Lek viewing protocols designed to reduce disturbance have generally been followed; consequently, lek viewing is not considered a threat. Mortality from scientific research is low (two percent) and is also not a threat to the GUSG.

Disease or Predation

West Nile virus is the only disease that currently presents a potential risk to GUSG. The virus is distributed throughout most of the species' range and it is nearly 100 percent lethal to infected birds. However, occurrence of the virus is sporadic and to date it has not been detected in GUSG. Therefore, we conclude that disease is not currently a threat, but has the potential to become a threat in the future.

Habitat fragmentation has increased the effects of predation on GUSG, particularly in the six smaller populations, resulting in a reduction in the species' productivity and abundance. Otherwise suitable habitat may become a habitat sink. Therefore, we conclude that predation is a threat to the persistence of the GUSG throughout its range.

Inadequacy of existing regulatory mechanisms

GUSG conservation has been addressed in some local, State, and Federal plans, laws, regulations, and policies. However, these mechanisms are not adequate to ameliorate other threats to the species; therefore, inadequate regulatory mechanisms are considered a threat to the GUSG.

At a local level, regulatory authority in Gunnison County has minimized some impacts related to residential development; however, habitat loss continues to occur within the County. Other counties within the species' range have not enacted similar regulations regarding development.

At a State level, Colorado Parks and Wildlife, Utah Division of Wildlife Resources, and other entities have implemented conservation easements to conserve GUSG habitat. These easements provide protection for the species where they occur, but do not yet cover enough of the landscape to provide for long-term conservation of the species. At least 20,145 ha (49,780 ac) or 12.5 percent of GUSG occupied habitat on private lands is protected by conservation easements. Colorado Parks and Wildlife has also entered into a Candidate Conservation Agreement with Assurances (CCAA) with the Service. Private landowners with property occupied by the GUSG in Colorado can voluntarily enroll in the CCAA by providing habitat protection or enhancement measures on their lands. At least 13,200 ha (32,619 ac) or eight percent of GUSG occupied habitat on private lands is protected by enrollment in this CCAA. State wildlife regulations prohibit hunting, but do not protect habitat from loss and fragmentation.

At a Federal level, the GUSG is not protected under provisions of the Migratory Bird Treaty Act (16 U.S.C. 703–712) because it is considered a resident game species. Federal agencies manage 54 percent of GUSG occupied habitat. The Bureau of Land Management's (BLM) Resource Management Plans and the U.S. Forest Service's (USFS) Land and Resource Management Plans provide varying levels of protection across the species' range.

Other natural or manmade factors affecting its continued existence

Six of the seven GUSG populations may have small enough population sizes to induce inbreeding depression (Stiver *et al*. 2008, p. 479). The long-term viability of GUSG is compromised by these genetic consequences, particularly when combined with other threats. Therefore, genetic risks associated with small population size are a threat to the species.

We are not aware of information pertaining to pesticides or contaminants associated with energy development and transport that indicates they are a threat to the species.

Summary of threats

We conclude that the present or threatened destruction, modification, or curtailment of habitat or range is the primary threat to GUSG. Other threats include predation, small population size, and inadequate regulatory mechanism regarding impacts associated with habitat loss and fragmentation.

2.2 Endangered Species Act

2.2.1 Critical Habitat

Critical habitat is defined in section 3(5)(A) of the ESA as (i) the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the ESA, on which are found those physical or biological features (I) essential to the conservation of the species and (II) that may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species. The term "conservation" as defined in section 3(3) of the ESA, means "to use and the use of all methods and procedures which are necessary to bring an endangered species or threatened species to the point at which the measures provided pursuant to this Act are no longer necessary" (i.e., the species is recovered and removed from the list of threatened and endangered species).

Section 4(b)(2) of the ESA requires that we base critical habitat designation on the best scientific and commercial data available, taking into consideration the economic impact, and any other relevant impact, of specifying any particular area as critical habitat. We may exclude areas from critical habitat designation if we determine that the benefits of exclusion outweigh the benefits of including the areas as critical habitat, provided the exclusion will not result in the extinction of the species. Within the geographic area occupied by the species, we will designate only areas currently known to be essential to the conservation of the species. This includes habitat currently unoccupied by the species that may be necessary for conservation of the species, such as areas important for population connectivity or range expansion. Critical habitat should already have the features and habitat characteristics that are necessary to sustain the species. We will not speculate about what areas might be found to be essential if better information were available, or what areas may become essential over time. If information available at the time of designation does not show that an area provides essential support for a species at any phase of its life cycle, then the area should not be included in the critical habitat designation. Within the geographic area occupied by the species, we will not designate areas that do not now have the physical and biological features that provide essential life cycle needs for the species.

Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize designation of critical habitat may not include all habitat eventually determined as necessary to recover the species. For these reasons, areas outside the critical habitat designation will continue to be subject to conservation actions that may be implemented under section 7(a)(1) and the regulatory protections afforded by the section 7(a)(2) jeopardy standard and section 9 protections, as determined on the basis of the best available information at the time of the action. We specifically anticipate that federally-funded or assisted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy

findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if new information available to planning efforts calls for a different outcome.

In accordance with section 3(5)(A)(i) of the ESA and regulations at 50 CFR 424.12 in determining which areas to propose as critical habitat, we are required to base critical habitat determinations on the best scientific and commercial data available and to consider physical and biological features that are essential to the conservation of the species, and that may require special management considerations or protection. These include, but are not limited to (1) space for individual and population growth, and for normal behavior; (2) food, water, air, light, minerals, or other nutritional or physiological requirements; (3) cover or shelter; (4) sites for breeding, reproduction, rearing (or development) of offspring; and (5) habitats protected from disturbance or that are representative of the historic geographical and ecological distributions of a species.

2.2.2 Section 7 Consultation

Section 7(a)(2) of the ESA requires every Federal agency, in consultation with and with the assistance of the Secretary, to insure that any action it authorizes, funds, or carries out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. In fulfilling these requirements, each agency is to use the best scientific and commercial data available. This section of the ESA sets out the consultation process, which is further implemented by regulation (50 CFR part 402).

Each Federal agency is to review its actions at the earliest possible time to determine whether any action may affect listed species or critical habitat. If the action may affect a listed species or critical habitat, consultation with the Service is required.

Informal consultation is an optional process that includes all discussions and correspondence between the Service and a Federal agency or designated non-Federal representative, designed to assist the Federal agency in determining whether formal consultation or a conference is required. If during consultation it is determined by the Federal agency, with the written concurrence of the Service, that the action is not likely to adversely affect listed species or critical habitat, the consultation process is terminated, and no further action is necessary. During informal consultation, the Service may suggest modifications to the action that the Federal agency and any applicant could implement to avoid the likelihood of adverse effects to listed species or critical habitat.

If the proposed action is likely to adversely affect a listed species or designated critical habitat, formal consultation with the Service is required. Formal consultation is a process between the Service and a Federal agency or applicant that (1) determines whether a proposed Federal action is likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat; (2) begins with a Federal agency's request and submittal of a complete initiation package; and (3) concludes with the issuance of a biological opinion.

With the request to initiate formal consultation, the Federal agency is to include (1) a description of the proposed action; (2) a description of the area that may be affected; (3) a description of any listed species or critical habitat that may be affected; (4) a description of the manner in which the listed species or critical habitat may be affected and an analysis of cumulative effects; (5) relevant reports including any environmental impact statement, environmental assessment, or biological assessment; and (6) any other relevant and available information.

Formal consultation concludes 90 days after its initiation. Within 45 days after concluding formal consultation, the Service delivers a biological opinion to the Federal agency and any applicant. The biological opinion will include the Service's opinion on whether the action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat. If the action is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat, the biological opinion will include a reasonable and prudent alternative, if any exist. A reasonable and prudent alternative is a recommended alternative action that can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction, that is economically and technologically feasible, and that would avoid the likelihood of jeopardizing the continued existence of the listed species or the destruction or adverse modification of designated critical habitat.

For animal species, in those cases where the Service concludes that an action (or the implementation of any reasonable and prudent alternatives) and the resultant incidental take of listed species will not violate section 7(a)(2), the Service will provide with the biological opinion a statement concerning incidental take that (1) specifies the impact of the take on the species; (2) specifies the reasonable and prudent measures to minimize the impact; (3) sets forth terms and conditions that must be complied with by the Federal agency or any applicant to implement the reasonable and prudent measures; and (4) specifies procedures to handle any individuals actually taken. Reasonable and prudent measures, along with the terms and conditions that implement them, cannot alter the basic design, location, scope, duration, or timing of the actions and may involve only minor changes. Any "taking" covered in the incidental take statement and in compliance with the terms and conditions of the statement is not a prohibited taking under the ESA and no other authorization or permit under the ESA is required.

2.2.3 Technical Assistance

Although it is not defined in the regulations, technical assistance includes those parts of the informal consultation that provide information to agencies, applicants, and/or consultants, but specifically stops short of concurrence on "may effect" determinations. The term is used to differentiate "informal" consultation (where a concurrence with an agency, applicant, or consultant on "may effect" is provided) and the provision of information. This differentiation is primarily made for record-keeping purposes.

A telephoned or written inquiry about the presence or absence of listed and/or proposed species in a project area usually initiates informal consultation and frequently generates technical assistance. Service biologists may respond in different ways:

a) If species are not likely to be present, the consultation requirement is met and the Service may advise the agency, applicant, or consultant.

b) If historical records or habitat similarities suggest the species may be in the area, then some survey work may be recommended to make a more precise determination.

c) If the species is definitely in the project area, but the Service determines it will not be adversely affected, the Service may notify the agency of that finding.

Technical assistance from the Service may take a variety of forms. It can include information on candidate species as well as names of contacts having information on State-listed species. The Service may provide correspondence to State agencies or other Service offices to alert them to a project.

As a part of technical assistance, the Service may recommend:

a) That the action agency conducts additional studies on the species' distribution in the area affected by the action, or

b) That the action agency monitors impacts of the action on aspects of the species' life cycle. Monitoring may be recommended when incidental take is not anticipated, but might possibly occur, thus triggering the need for project changes or formal consultation.

2.2.4 Section 9 Prohibitions

Section 9 of the ESA prohibits "take" of endangered species of fish and wildlife. The Service has issued regulations (50 CFR 17.31) that generally apply to threatened wildlife, the take prohibitions that section 9 of the ESA established with respect to endangered wildlife. Take is defined in section 3 of the ESA as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Harass is defined by the Service as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns, which include, but are not limited to, breeding, feeding, or sheltering (50 CFR 17.3). Incidental take is the take of listed fish and wildlife species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by a Federal agency or applicant (50 CFR 402.02).

2.2.5 Section 10 Permits

Section 10(a)(1)(A) Enhancement of survival permits are issued to non-Federal landowners who volunteer to participate in Safe Harbor Agreements or CCAAs. These agreements encourage landowners to take actions to benefit species while also providing assurances that they will not be subject to additional regulatory restrictions as a result of their conservation actions. The

permits provide authorization for take associated with conservation measures and routine land uses covered by these plans.

Section 10(a)(1)(A) Recovery permits are issued to allow for take as part of activities intended to foster the recovery of listed species. A typical use of a recovery permit is to allow for scientific research on a listed species in order to better understand the species' long-term survival needs. Recovery permits may also be issued for on-the-ground conservation activities such as captive rearing and reintroductions. Interstate commerce permits also allow transport and sale of listed species across State lines (for purposes such as a breeding program).

Section 10(a)(1)(B) Incidental take permits are required when non-Federal activities will result in take of threatened or endangered species. A habitat conservation plan must accompany an application for an incidental tale permit. The habitat conservation plan associated with the permit ensures that the effects of the authorized incidental take are adequately minimized and mitigated. The Service's issuance of the incidental take permit is a Federal action that requires compliance with NEPA in the form of a categorical exclusion, environmental assessment, or environmental impact statement, depending on the level of impacts to the human environment. Permit issuance also requires us to comply with section 7 of the ESA by conducting an intra-Service consultation and completing a biological opinion.

3.0 Description of Alternatives

This section describes the proposal for critical habitat for the GUSG. Alternatives are different ways of meeting the purpose and need for critical habitat designation as described in section 1 of this Draft Environmental Assessment. The purpose and need for critical habitat can be summarized as providing protection of habitat that is essential to the conservation of listed species. In addition, we considered three potential alternatives without thoroughly examining the impacts of their implementation.

3.1 Alternatives Considered But Not Fully Evaluated

The following three alternatives reflect public comments we received to date regarding the proposed rule to designate critical habitat for the GUSG (78 FR 2540, January 11, 2013) and include our explanation for why these alternatives were not evaluated further in this Draft Environmental Assessment.

3.1.1 Designation of Critical Habitat Only on Habitat Currently Occupied

We received numerous comments suggesting that critical habitat only should be designated for habitat currently occupied by GUSG. Approximately 45 percent of the 689,675 ha (1,704,227 ac) of proposed critical habitat is unoccupied by GUSG. Unoccupied habitat proposed for critical habitat is either suitable for use by GUSG or could be suitable if practical restoration were applied. The latter situation most commonly occurs in areas where piñon-juniper has encroached on sagebrush habitat. Unoccupied habitat was proposed as critical habitat based on: (1) its proximity to currently occupied habitat (based on typical sage-grouse movements of 18.5 km (11.5 mi) or less); (2) its ability to improve connectivity between and within GUSG

populations; and (3) and the extent of sagebrush within the unoccupied habitat. Currently occupied habitat for six of the seven GUSG populations (with the exception of the Gunnison Basin population) may be less than the minimum amount of habitat necessary for the long-term viability of each population, as evidenced by rangewide population trends indicating an overall long-term decline in GUSG numbers outside of the Gunnison Basin population. Consequently, based on what we now know, we believe that the existing occupied habitat is not sufficient to ensure conservation of the species.

3.1.2 Designation of Critical Habitat Only on Public Lands

We received numerous comments suggesting that critical habitat should only be designated on public lands. Federal agencies manage 54 percent of currently occupied habitat and 48 percent of proposed critical habitat. Approximately 49 percent of proposed critical habitat is on private lands. The remainder of proposed critical habitat is on State, city, or county lands. Although there is an abundance of public lands within the current range of the GUSG, much of it is either unsuitable habitat such as forested areas, or is at a greater distance from existing habitat than is typically covered during sage-grouse movements. Therefore, based on what we now know we believe that the habitat on public lands is not sufficient to ensure conservation of the species.

3.1.3 Designation of Critical Habitat Only in Gunnison Basin

We received numerous comments suggesting that critical habitat should only be designated within Gunnison Basin. As noted in the section discussing population trends, the Gunnison Basin population encompasses 63 percent of all occupied habitat and 88 percent of the current total population. The Gunnison Basin has been described as a core area or stronghold for the GUSG. We agree with these descriptions. However, the other six populations provide necessary redundancy in the event of perturbations such as an outbreak of West Nile virus or the occurrence of drought, either of which could result in severe impacts to the species. The loss of any or all of the populations outside of Gunnison Basin would reduce the geographical distribution and total range of the GUSG and increase the species' vulnerability to stochastic events and natural catastrophes. Therefore, based on what we now know we believe that designating critical habitat only in Gunnison Basin is not sufficient to ensure conservation of the species.

3.2 Alternative A. No Action Alternative

Pursuant to NEPA and its implementing regulations (40 CFR 1502.14), we are required to consider the No Action Alternative. Alternative A, the No Action Alternative, would maintain the status quo, that is, we would not designate critical habitat for GUSG. While no critical habitat would be present under this alternative, the protections provided to GUSG by the species being listed under the ESA would still apply. As such, the protections afforded to GUSG by being listed under the ESA are considered the baseline against which we evaluate the action alternative described below. In the Draft Economic Analysis (Industrial Economics, Inc. 2013), the costs listed as baseline would be associated with this alternative.

3.3 Alternative B. Designation of Critical Habitat (Proposed Action)

Alternative B, our Proposed Action, would designate critical habitat as described in the proposed rule published in the Federal Register on January 11, 2013 (78 FR 2540). We propose to designate approximately 689,675 ha (1,704,227 ac) of critical habitat in seven units. The seven units we propose as critical habitat correspond to the seven GUSG populations, which include: (1) Monticello-Dove Creek, (2) Piñon Mesa, (3) San Miguel Basin, (4) Cerro Summit-Cimarron-Sims Mesa, (5) Crawford, (6) Gunnison Basin, and (7) Poncha Pass. Each unit contains both occupied and unoccupied habitat. All or part of each unit occurs in Colorado. Two units—Monticello-Dove Creek and Piñon Mesa—occur partially in Utah. Maps of these units are found in section 10 of this Draft Environmental Assessment. In the Draft Economic Analysis (Industrial Economics, Inc. 2013), the costs listed as incremental would be incurred by this alternative.

Alternative B, the Proposed Action, includes the designation of critical habitat in areas believed to contain the physical and biological features upon which the GUSG depends. The Service refers to these essential habitat features as "primary constituent elements" (PCEs). The PCEs for this species includes those habitat components essential for meeting the biological needs of reproducing, rearing of young, foraging, sheltering, dispersing, and exchanging genetic material. GUSG are sagebrush obligates, requiring large, interconnected expanses of sagebrush plant communities that contain a healthy understory of native, herbaceous vegetation. The species may also use riparian habitat, agricultural lands, and grasslands that are in close proximity to sagebrush habitat.

PCEs for the GUSG are described as follows:

- All critical habitat must include a landscape-scale PCE of plant communities with at least 25 percent sagebrush land cover within a 1.5 km (0.9 mi) radius, of sufficient size and configuration to encompass all seasonal habitats for a given population of GUSG and facilitate movements within and among populations.

- All critical habitat must include one or more of the following site-scale PCEs:
    - Breeding habitat, with structural characteristics described in the proposed rule (78 FR 2540, January 11, 2013);
    - Summer-late fall habitat, with structural characteristics described in the proposed rule (78 FR 2540, January 11, 2013);
    - Winter habitat, with structural characteristics described in the proposed rule (78 FR 2540, January 11, 2013);
    - Alternative, mesic habitats used primarily in the summer-late fall season.

3.4 Summary of Actions by Alternative

In Table 2 we provide a comparison between Alternative A (No Action), which includes no designation of critical habitat, and Alternative B (Proposed Action), which includes critical habitat proposed January 11, 2013 (78 FR 2540).

Table 2. Proposed critical habitat for GUSG

Critical Habitat Unit	No Action	Proposed Action
Unit 1: Monticello-Dove Creek	0 ha (0 ac)	140,973 ha (348,353 ac)
Unit 2: Piñon Mesa	0 ha (0 ac)	99,220 ha (245,179 ac)
Unit 3: San Miguel Basin	0 ha (0 ac)	67,084 ha (165,769 ac)
Unit 4: Cerro Summit-Cimarron-Sims Mesa	0 ha (0 ac)	25,377 ha (62,708 ac)
Unit 5: Crawford	0 ha (0 ac)	39,304 ha (97,123 ac)
Unit 6: Gunnison Basin	0 ha (0 ac)	298,173 ha (736,802 ac)
Unit 7: Poncha Pass	0 ha (0 ac)	19,543 ha (48,292 ac)
Total	0 ha (0 ac)	689,675 ha* (1,704,227 ac)*

* Total numbers do not sum exactly due to rounding

4.0 Description of Affected Environment

The geographic area for Alternative B, the Proposed Action, includes 689,675 ha (1,704,227 ac) of critical habitat on Federal, State, local government-owned, and private lands in Chaffee, Delta, Dolores, Gunnison, Hinsdale, Mesa, Montrose, Ouray, Saguache, and San Miguel Counties in Colorado, and in Grand and San Juan Counties in Utah.

4.1 Physical Environment

Areas proposed as critical habitat include intermontane (located between mountain ranges) and shrub steppe habitats dominated by, or near, sagebrush plant communities, generally between 1,500 and 2,900 meters (5,000–9,500 feet) in elevation. The areas proposed as critical habitat in Alternative B are described in sections 2.1.2 and 2.1.3 above.

4.2 Fish, Wildlife, and Plants

The discussion in this section is broken down into a description of GUSG; a description of other candidate, threatened, and endangered species; and a description of other fish, wildlife, and plant species.

4.2.1 Gunnison Sage-grouse

The proposed designation of critical habitat for the GUSG is the subject of this Draft Environmental Assessment. Details regarding the affected environment for this species are described throughout section 4 of the Draft Environmental Assessment.

4.2.2 Candidate, Threatened, and Endangered Species

Table 3 summarizes the Federal candidate, threatened, and endangered species that may occur in the counties containing proposed critical habitat for the GUSG. We have assessed whether these species occur within any of the proposed critical habitat units (Alternative B) in the comment column. Proposed critical habitat for GUSG likely overlaps with habitat for two candidate species—Gunnison's prairie dog and skiff milkvetch—and with habitat for the threatened Colorado hookless cactus. None of the three species with habitat that likely overlaps GUSG habitat have critical habitat designations. Certain activities in GUSG proposed critical habitat

may indirectly affect critical habitat for four endangered Colorado River fish—humpback chub, bonytail chub, Colorado pikeminnow, and razorback sucker.

Table 3. Candidate, threatened, and endangered species in counties with GUSG proposed critical habitat

Common Name	Scientific Name	Taxonomic Group	Status	Critical Habitat Comments
Gunnison's prairie dog	*Cynomys gunnisoni*	Mammal	Candidate	The species' range includes Chaffee, Gunnison, Hinsdale, Montrose, and Saguache Co., CO. Its habitat includes grasslands, semi-desert, and montane shrublands and overlaps GUSG proposed critical habitat.
Canada lynx	*Lynx canadensis*	Mammal	Threatened	The species is known or believed to occur in all CO counties that contain GUSG proposed critical habitat. Lynx habitat includes montane and subalpine forests, as well as adjacent areas of quaking aspen (*Populus tremuloides*), mountain shrub, and willow (*Salix* spp.) communities. Therefore, minimal overlap may occur in some higher elevation areas of GUSG proposed critical habitat.
Humpback chub	*Gila cypha*	Fish	Endangered	Critical habitat for this species occurs in the Green R. in Grand Co., UT and in the Colorado R. in San Juan Co., UT, but does not overlap GUSG proposed critical habitat. However, projects that result in water depletions in portions of GUSG proposed critical habitat may indirectly affect the humpback chub and its habitat.
Bonytail chub	*Gila elegans*	Fish	Endangered	Critical habitat for this species occurs in the Green R. in Grand Co., UT and in the Colorado R. in Mesa Co., CO and San Juan Co., UT, but does not overlap GUSG proposed critical habitat. However, projects that result in water depletions in portions of

				GUSG proposed critical habitat may indirectly affect the bonytail chub and its habitat.
Colorado pikeminnow	*Ptychocheilus lucius*	Fish	Endangered	Critical habitat for this species occurs in the Green R. and Colorado R. in Grand and San Juan Co., UT, in the Gunnison R. in Delta and Mesa Co., CO, and in the Colorado R. in Mesa Co., CO, but does not overlap GUSG proposed critical habitat. However, projects that result in water depletions in portions of GUSG proposed critical habitat may indirectly affect the Colorado pikeminnow and its habitat.
Razorback sucker	*Xyrauchen texanus*	Fish	Endangered	Critical habitat for this species occurs in the Green R. and Colorado R. in Grand and San Juan Co., UT, in the Gunnison R. in Delta and Mesa Co., CO, and in the Colorado R. in Mesa Co., CO, but does not overlap GUSG proposed critical habitat. However, projects that result in water depletions in portions of GUSG proposed critical habitat may indirectly affect the razorback sucker and its habitat.
Boreal toad	*Anaxyrus boreas boreas*	Amphibian	Under review	This species is known or believed to occur in Chaffee, Gunnison, Hinsdale, and Mesa Co., CO. Its habitat is high elevation wetlands. There is little or no overlap with GUSG proposed critical habitat.
Greater sage-grouse	*Centrocercus urophasianus*	Bird	Candidate	This species is known to occur in Grand Co., UT and in Chaffee and Saguache Co., CO. However, its range does not overlap with GUSG proposed critical habitat.
Yellow-billed Cuckoo	*Coccysuz americanus*	Bird	Candidate	This species is known or believed to occur in Grand and San Juan Co., UT, and in Delta, Gunnison, and Montrose Co., CO. However, there is little or no overlap with GUSG proposed critical habitat.

Southwestern willow flycatcher	*Empidonax traillii extimus*	Bird	Endangered	This species is known or believed to occur in Grand and San Juan Co., UT and in Dolores, Ouray, Saguache, and San Miguel Co., CO. Critical habitat for this species occurs along the San Juan R. in San Juan Co., UT. The species utilizes wooded riparian habitat, with little or no overlap with GUSG proposed critical habitat.
California condor	*Gymnogyps californianus*	Bird	Experimental population, non-essential	This species is known or believed to occur in counties containing GUSG critical habitat. However, the condor is an infrequent visitor and does not use the area for nesting.
Mexican spotted owl	*Strix occidentalis lucida*	Bird	Threatened	Critical habitat for this species occurs in Grand and San Juan Co., UT, and in Montezuma Co., CO, south of GUSG proposed critical habitat. The owl utilizes mixed conifer habitats in canyons and steep slopes, which does not overlap GUSG proposed critical habitat.
Skiff milkvetch	*Astragalus microcymbus*	Plant	Candidate	This plant is known to occur in Gunnison and Saguache Co., CO. Its habitat is sagebrush steppe, and overlaps with GUSG proposed critical habitat.
Jones cycladenia	*Cycladenia humilis var. jonesii*	Plant	Threatened	This plant is known to occur in Grand Co., UT. Its habitat includes mixed desert scrub, juniper, and wild buckwheat-Mormon tea, with little or no overlap with GUSG proposed critical habitat.
Clay-loving wild buckwheat	*Eriogonum pelinophilum*	Plant	Endangered	This plant is known to occur in Delta and Montrose Co., CO in sparsely vegetated swales. Critical habitat for this species occurs in Delta Co., CO. There is no overlap with GUSG proposed critical habitat.
Debeque	*Phacelia*	Plant	Threatened	Critical habitat for this plant

phacelia	*submutica*			occurs in northern Mesa Co., CO. Its habitat includes badlands and shrublands, but does not overlap with GUSG proposed critical habitat.
Colorado hookless cactus	*Sclerocactus glaucus*	Plant	Threatened	This plant is known or believed to occur in Delta, Mesa, and Montrose Co., CO. Its habitat includes alluvial benches along the Colorado and Gunnison Rivers. Associated vegetation can include sagebrush. Portions of its habitat overlap GUSG proposed critical habitat.

4.2.3 Other Fish, Wildlife, and Plant Species

Many other wildlife species are also found within proposed critical habitat for the GUSG, including some State threatened and endangered species and species of concern. Mammals include Pronghorn (*Antilocapra americana*) and kit fox (*Vulpes macrotis*). Birds include burrowing owl (*Athene cunicularia*), American peregrine falcon (*Falco peregrines anatum*), bald eagle (*Haliaeetus leucocephalus*), and ferruginous hawk (*Buteo regalis*).

4.3 Human Environment

A wide diversity of human activities and land uses occur throughout or adjacent to the areas identified for designation as critical habitat in Colorado and Utah under Alternative B. Private, State, and Federal lands, and lands owned by the Ute Mountain Ute Tribe are included within proposed critical habitat for GUSG. The following activities were identified as the primary uses in the Draft Economic Analysis (Industrial Economics, Inc. 2013, p. ES-5) and are expected to persist into the foreseeable future.

4.3.1 Transportation

Transportation activities within proposed critical habitat consist primarily of construction and maintenance of roads. New roads typically are associated with residential development. There are approximately 219 km (136 mi) of State and Federal highways within GUSG occupied habitat. According to Colorado and Utah Departments of Transportation, volume and construction of new roads in occupied habitat have not increased significantly over the past 10 years.

4.3.2 Livestock Grazing

At least 87 percent of GUSG occupied habitat on Federal lands is currently grazed by domestic livestock; however, current stocking rates are substantially lower than historical levels. Approximately 292,000 ha (720,000 ac) of Federal grazing allotments are located on GUSG

occupied habitat and 105,000 ha (260,000 ac) on unoccupied habitat. There are numerous management strategies associated with livestock grazing including the Gunnison Sage-grouse Rangewide Conservation Plan, the Gunnison Basin Candidate Conservation Agreement, BLM Resource Management Plans, and USFS Land and Resource Management Plans.

4.3.3 Mineral and Fossil Fuel Extraction

Potential types of mineral and fossil fuel extraction within the range of the GUSG include oil and gas operations, uranium mining, and potash mining. The habitat for two GUSG populations—San Miguel Basin and Monticello-Dove Creek—has a high potential for oil and gas development. Habitat for the Crawford population has a medium potential for oil and gas development. Energy development is currently occurring primarily in the San Miguel Basin. Approximately 23,000 ha (57,000 ac) of BLM lands are leased for oil and gas production within GUSG proposed critical habitat; 38 percent of those lands are currently in production. There are currently no producing uranium mines. Potash exploration is currently active within GUSG proposed critical habitat. Baseline conservation efforts with regard to mineral and fossil fuel extraction activities include timing requirements, avoiding surface disturbance, habitat restoration required in BLM Resource Management Plans, and habitat protections required by the Colorado Oil and Gas Conservation Commission.

4.3.4 Residential Development

The primary development activity within proposed critical habitat is residential development and is increasingly exurban in nature. Residential development has been particularly notable in Gunnison County. In recent years, the human population growth rate has slowed, likely due to economic downturn, resulting in lower rates of residential development.

4.3.5 Recreation

The season for hunting GUSG has been closed since 1989 in Utah, since 2000 in Gunnison Basin, and since 1995 for the other GUSG populations. Hunting for other wildlife species and fishing continues as a popular recreational activity within the range of the GUSG. Other recreational activities within GUSG occupied habitat include hiking and the use of off-highway vehicles such as motorcycles, all-terrain vehicles, mountain bikes, and snowmobiles. Recreational use of trails is expected to increase over the next 20 years.

4.3.6 Agriculture

Approximately 23,220 ha (57,377 ac) or 51 percent of GUSG occupied habitat in the Monticello-Dove Creek area is currently in agricultural production. Approximately 20,754 ha (51,285 ac) or 9 percent of GUSG occupied habitat in the Gunnison Basin; 6,287 ha (15,535 ac) or 15 percent of GUSG occupied habitat in the San Miguel Basin; and 5,133 ha (2,077 ac) or 14 percent of GUSG occupied habitat in the Cerro Summit-Cimarron-Sims Mesa area are also currently in agricultural production. Agricultural production is limited to three percent or less in habitat for the Crawford, Piñon Mesa, and Poncha Pass populations. Cultivated crops include wheat, beans, sunflowers, hay, and alfalfa. With the exception of Gunnison County, total area of harvested

cropland has declined over the past two decades within the occupied range of GUSG. Many privately owned farms participate in voluntary conservation-based programs with the Natural Resource Conservation Service (NRCS) and Farm Service Agency (FSA).

4.3.7 Renewable Energy

There are at least three current applications for geothermal leases within the range of GUSG, totaling approximately 4,061 ha (10,035 ac); of that, approximately 3,802 ha (9,395 ac) are in occupied habitat. All geothermal leases are located in the Gunnison Basin. However, the owner of the geothermal leases does not intend to develop the resource. Two energy development companies have recently leased private land for wind turbine construction in the area of Monticello, Utah. No renewable energy development currently occurs within GUSG habitat.

4.4 Tribal Lands

There is no proposed critical habitat on tribal lands. However, approximately 5,000 ha (12,000 ac) of fee land belonging to the Ute Mountain Ute Tribe are within GUSG occupied habitat and proposed critical habitat in the Gunnison Basin. This land supports tribal grazing operations and tribal community events on Pinecrest Ranch.

5. Environmental Consequences

This section reviews the expected environmental consequences of designating critical habitat for the GUSG under Alternative A (the No Action Alternative) and under Alternative B (the Proposed Action to designate critical habitat). We evaluate the impacts of designating critical habitat by comparing a scenario where we would not designate critical habitat (baseline) and the scenario in which critical habitat is designated. Measured (incremental) differences between baseline and the scenario in which critical habitat is designated as proposed may include, but are not limited to, changes in land use, environmental quality, property values, and time and effort expended on consultations and other activities by Federal landowners, Federal action agencies, and with State and local governments and private third parties whose projects have a Federal nexus. These incremental changes may be either positive or negative.

The Draft Economic Analysis does not attempt to quantify the economic benefits associated with the proposed critical habitat designation, but does recognize that there is an economic value associated with this designation (Industrial Economics, Inc. 2013). These benefits are especially true for those unoccupied areas where protections for the Gunnison sage-grouse, through occupied habitat protections, would not otherwise apply.

Regardless of which alternative is chosen, or whether a Federal action affects critical habitat; in accordance with section 7(a)(2) of the ESA, Federal agencies are required to review actions they authorize, fund, or carry out to determine the effects of proposed actions on federally-listed species. If the Federal agency determines that its action may adversely affect a listed species, it must enter into formal consultation with the Service. This consultation results in a biological opinion issued by the Service as to whether the proposed action is likely to jeopardize the continued existence of the species.

A similar process is required when critical habitat is designated. While reviewing their actions to determine the effect on the listed species, Federal agencies also review their action for the effects on critical habitat and enter into section 7 consultations with us on actions they determine may affect critical habitat. If the proposed action is likely to adversely affect critical habitat, the consultation would result in a biological opinion as to whether the proposed action is likely to destroy or adversely modify designated critical habitat, Under Alternative B, critical habitat would be designated; therefore, instances where the Federal action agency would be required to address both the jeopardy standard and the destruction or adverse modification of critical habitat standard in section 7 consultations would occur.

Activities that would jeopardize the continued existence of a species are defined as those actions that "reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery" of the listed species (50 CFR 402.02). Activities that would destroy or adversely modify critical habitat will most often also result in jeopardy to the species.

It is difficult to differentiate between consultations that result from the listing of this species (i.e., jeopardy to the species) and consultations that result from the presence of critical habitat (i.e., destruction or adverse modification of critical habitat). The Draft Economic Analysis (Industrial Economics, Inc. 2013) quantifies the potential economic impacts associated with future section 7 consultations in or near proposed critical habitats and it is incorporated into this Draft Environmental Assessment. The following discussion will disclose the potential costs attributable to critical habitat designation, when available, from the Draft Economic Analysis (Industrial Economics, Inc. 2013).

Individuals, organizations, States, local governments, and other non-Federal entities are only affected by the designation of critical habitat if their actions occur on Federal lands, require a Federal permit, license, or other authorization, or involve Federal funding (for example, 404 permits from the U.S. Army Corps of Engineers, dam licensing or relicensing by the Federal Energy Regulatory Commission, or funding of activities by the NRCS).

Potential environmental consequences that may result from implementation of the No Action and Proposed Action Alternatives are discussed below. All impacts are expected to be indirect, as critical habitat designation does not in itself directly result in any alteration of the environment.

As required by NEPA, this document is intended to disclose the programmatic goals and objectives of the ESA. These objectives include protection of natural communities and ecosystems, minimization of fragmentation and promotion of the natural patterns and connectivity of wildlife habitats, promotion of native species and avoidance of the introduction of non-native species, protection of rare and ecologically important species and unique or sensitive environments, maintenance of naturally occurring ecosystem processes and genetic and structural diversity, restoration of ecosystems and communities, and recovery of species.

5.1 Physical Environment

None of the alternatives will directly impact the physical environment since the proposed designation is an administrative action.

5.2 Fish, Wildlife, and Plants

5.2.1 Gunnison Sage-grouse

Alternative A – Under the No Action Alternative, there would be no designation of critical habitat under the ESA. Federally supported actions that may affect the GUSG would require section 7 consultations under the jeopardy standards in all areas occupied by the species. Consultations would likely be with: (1) the BLM and USFS regarding fire suppression, fuel reduction treatments, livestock grazing and management, permits for non-renewable and renewable energy development, individual projects, and management plans; and (2) the Service regarding section 10 enhancement of survival permits, habitat conservation plans, and Safe Harbor Agreements. Analysis under the adverse modification standard would not be required because no critical habitat would be designated.

Alternative B – Under the Proposed Action, there would be similar effects to the GUSG as under the No Action Alternative. There would also be impacts resulting from critical habitat designation beyond those already considered in section 7 consultations. These additional impacts would be more widespread under the Proposed Action, and the number of consultations would increase due to consideration of unoccupied critical habitat. The complexity of section 7 consultations would increase because the analysis would also have to consider adverse modification to critical habitat.

Designating critical habitat does not, by itself, lead to the recovery of a listed species. The designation does not establish a reserve, create a management plan, establish numerical population goals, prescribe specific management practices within or outside critical habitat, or directly affect areas not designated as critical habitat. Specific management recommendations for areas designated as critical habitat are most appropriately addressed in recovery and management plans, and through section 7 consultation.

Benefits to the GUSG that may accrue from the designation of critical habitat under the Proposed Action would relate to the requirement under section 7 of the ESA that Federal agencies review their actions to assess their effects on critical habitat. Critical habitat designation can help to focus Federal, State, local, and private conservation and management efforts by identifying the areas of most importance to the species. Critical habitat also allows for long-term project planning for species conservation. Other potential benefits include educational benefits through increasing the knowledge that a species exists or is in an area, improvements to air or water quality as a result of species protections, and conservation of native habitats. Some of these benefits can be attributed to listing the GUSG, and some would be attributable to the critical habitat designation.

5.2.2 Candidate, Threatened, and Endangered Species

Alternative A – Under the No Action Alternative, there would be no designation of critical habitat under the ESA. Most candidate, threatened, and endangered species within the range of the GUSG do not utilize habitat occupied by GUSG. Consequently, there would be no significant impact to those species. Two candidate species (Gunnison's prairie dog and skiff milkvetch) and the threatened Colorado hookless cactus may share portions of the same habitat occupied by GUSG. The four endangered Colorado River fishes (humpback chub, bonytail chub, Colorado pikeminnow, and razorback sucker) may be affected by projects in GUSG habitat. These species may indirectly benefit as a result of ecosystem protections provided through conservation of the GUSG and associated requirements of section 7 of the ESA.

Alternative B – Under the Proposed Action, there would be similar effects to the candidate, threatened, and endangered species within the range of the GUSG as described under the No Action Alternative. As previously noted, proposed critical habitat for GUSG likely overlaps with habitat for two candidate species: Gunnison's prairie dog and skiff milkvetch, and with habitat for the threatened Colorado hookless cactus. Furthermore, projects in GUSG proposed critical habitat that result in water depletions may affect the four endangered Colorado River fishes or their habitats. For these species, there would be additional indirect benefits resulting from critical habitat designation beyond those already considered in section 7 consultations. The objectives of designating critical habitat include the protection of natural communities and ecosystems, minimization of habitat fragmentation and maintenance and restoration of natural landscape patterns and connectivity of wildlife habitats, promotion of native species and avoidance of introduction of non-native species, protection of rare and ecologically important species and unique or sensitive environments, maintenance of naturally occurring ecosystem processes and genetic and structural diversity, restoration of ecosystems and communities, and recovery of the species. Management of proposed critical habitat for the GUSG will not deleteriously affect these species, and could lead to net benefits through preservation of intact habitat.

5.2.3 Other Fish, Wildlife, and Plant Species

Alternative A – Under the No Action Alternative, other fish, wildlife, and plants that utilize habitat occupied by the GUSG may indirectly benefit as a result of ecosystem protections provided through conservation of the GUSG and associated requirements of section 7 of the ESA.

Alternative B – Under the Proposed Action, there would be similar effects to other fish, wildlife, and plants within the range of the GUSG as described under the No Action Alternative. However, additional effects would occur under the Proposed Action through the designation of critical habitat. The objectives of designating critical habitat include the protection of natural communities and ecosystems, minimization of habitat fragmentation and maintenance and restoration of natural landscape patterns and connectivity of wildlife habitats, promotion of native species and avoidance of introduction of non-native species, protection of rare and ecologically important species and unique or sensitive environments, maintenance of naturally occurring ecosystem processes and genetic and structural diversity, restoration of ecosystems and communities, and recovery of the species. Other fish, wildlife, and plants may indirectly benefit as a result of these ecosystem protections and associated requirements of section 7 of the ESA.

As a result of critical habitat designation, Federal agencies may be able to prioritize landowner incentive programs such as the Wildlife Habitat Incentives Program or Environmental Quality Incentives Program, conservation easements, and private landowner agreements that may benefit these other species. Critical habitat designation also may assist States in prioritizing their conservation and land management programs.

5.3 Human Environment

As discussed above, individuals, organizations, States, local governments, and other non-Federal entities are only affected by the designation of critical habitat if their actions occur on Federal lands, require a Federal permit, license, or authorization, or involve Federal funding. Federal agencies will be required to consider the effects of their actions to the GUSG and consult with the Service as appropriate. A similar process is required for critical habitat. Incremental impacts are likely due to the implementation of consultations in unoccupied portions of proposed critical habitat, where such efforts would not be requested without the designation of critical habitat.

A perception may exist within some segments of the public that any designation of critical habitat will severely limit property rights; however, critical habitat designation has no effect on private actions on private land that do not involve Federal approval or action. We recognize that there are private actions on private or State lands that involve Federal actions, and agencies will be required to consult with us under section 7 of the ESA for actions that may affect critical habitat.

Differentiating between consultations that result from the listing of the GUSG and consultations that result from the presence of critical habitat is difficult. However, the following discussion will address how much of the cost associated with all future section 7 consultations in or near the proposed critical habitat units is likely attributable to critical habitat designation, as determined in the Draft Economic Analysis (Industrial Economics, Inc. 2013). The Draft Economic Analysis assigns costs to the baseline and incremental scenarios for each unit of critical habitat based on the location of future projects within occupied habitat (assumed to result in baseline impacts) or within unoccupied habitat (assumed to result in incremental impacts due to consultations in unoccupied habitat that would not otherwise occur). These costs over the next 20 years are summarized at a seven percent discount rate in Table 4 and presented in detail in the Draft Economic Analysis (Industrial Economics, Inc. 2013). The 20-year analysis period reflects the maximum amount of time under which future activities and economic impacts associated with the Proposed Rule can be reliably projected, given available data and information. Entries in Table 4 may not sum to totals reported due to rounding. Table 5 presents the annualized baseline and incremental economic impacts.

Table 4. Forecast baseline and incremental impacts by unit, 2013-2032 (2012$, 7% discount rate)

Unit	Baseline Impacts	Incremental Impacts	Total
Monticello-Dove Creek	$1,800,000	$1,700,000	$3,500,000

Piñon Mesa	$1,700,000	$600,000	$2,300,000
San Miguel Basin	$770,000	$470,000	$1,240,000
Cerro Summit-Cimarron-Sims Mesa	$320,000	$110,000	$430,000
Crawford	$2,300,000	$710,000	$3,010,000
Gunnison Basin	$2,200,000	$160,000	$2,360,000
Poncha Pass	$630,000	$22,000	$652,000
Total	$9,600,000	$3,800,000	$13,400,000

The following table provides estimates of annualized costs for each unit of critical habitat at a seven percent discount rate. Entries in Table 5 may not sum to totals reported due to rounding.

Table 5. Forecast baseline and incremental impacts by unit, annualized (2012$, 7% discount rate)

Unit	Baseline Impacts	Incremental Impacts	Total
Monticello-Dove Creek	$160,000	$150,000	$310,000
Piñon Mesa	$150,000	$53,000	$203,000
San Miguel Basin	$68,000	$41,000	$109,000
Cerro Summit-Cimarron-Sims Mesa	$28,000	$10,000	$38,000
Crawford	$200,000	$63,000	$263,000
Gunnison Basin	$190,000	$14,000	$204,000
Poncha Pass	$55,000	$2,000	$57,000
Total	$850,000	$330,000	$1,180,000

The following sections provide additional information on activities identified as the primary land uses in the Draft Economic Analysis (Industrial Economics, Inc. 2013).

5.3.1 Transportation

Alternative A – Under the No Action Alternative, approximately 64 percent of all baseline costs would be associated with transportation projects, with administrative costs of consultation estimated at $6,100,000 over 20 years. Costs associated with jeopardy analyses in occupied

habitat are considered baseline impacts. These costs would be primarily for BLM, USFS, and National Park Service (NPS). Eighteen informal consultations are expected annually for Colorado. Baseline costs over the next 20 years and annualized baseline costs are as follows:

- Monticello-Dove Creek $1,300,000 over 20 years; $110,000 annual
- Piñon Mesa $1,200,000 over 20 years; $100,000 annual
- San Miguel Basin $320,000 over 20 years; $28,000 annual
- Cerro Summit-Cimarron-Sims Mesa $280,000 over 20 years; $24,000 annual
- Crawford $1,600,000 over 20 years; $140,000 annual
- Gunnison Basin $1,000,000 over 20 years; $88,000 annual
- Poncha Pass $520,000 over 20 years; $46,000 annual

Alternative B – Under the Proposed Action, in addition to the baseline costs described under the No Action Alternative, additional administrative costs for consultation on transportation projects are estimated at $1,300,000 over 20 years. Costs associated with adverse modification analyses as well as costs of consultation in unoccupied habitat are considered incremental impacts. Incremental costs over the next 20 years and annualized incremental costs are as follows:

- Monticello-Dove Creek $460,000 over 20 years; $40,000 annual
- Piñon Mesa $20,000 over 20 years; $1,800 annual
- San Miguel Basin $5,600 over 20 years; $490 annual
- Cerro Summit-Cimarron-Sims Mesa $84,000 over 20 years; $7,400 annual
- Crawford $640,000 over 20 years; $56,000 annual
- Gunnison Basin $92,000 over 20 years; $8,100 annual
- Poncha Pass $9,000 over 20 years; $800 annual

5.3.2 Livestock Grazing

Alternative A – Under the No Action Alternative, approximately 13 percent of baseline costs would be associated with livestock grazing, including possible grazing restrictions and administrative costs associated with programmatic section 7 consultations under the ESA, with costs of $1,200,000 over 20 years. Costs associated with jeopardy analyses in occupied habitat are considered baseline impacts. These costs would be primarily for BLM and USFS. Privately owned ranches typically lack a Federal nexus for section 7 consultation under the ESA. Baseline costs to livestock grazing activities on Federal lands over the next 20 years and annualized baseline costs are as follows:

- Monticello-Dove Creek $150,000 over 20 years; $13,000 annual
- Piñon Mesa $190,000 over 20 years; $16,000 annual
- San Miguel Basin $54,000 over 20 years; $4,700 annual
- Cerro Summit-Cimarron-Sims Mesa $17,000 over 20 years; $1,500 annual
- Crawford $150,000 over 20 years: $13,000 annual
- Gunnison Basin $650,000 over 20 years; $58,000 annual
- Poncha Pass $28,000 over 20 years; $2,500 annual

Alternative B – Under the Proposed Action, in addition to the baseline costs described under the No Action Alternative, additional grazing restrictions and administrative costs associated with programmatic section 7 consultations under the ESA would cost $1,200,000 over 20 years. Costs associated with adverse modification analyses as well as costs of consultation in unoccupied habitat are considered incremental impacts. Incremental costs to livestock grazing activities on Federal lands over the next 20 years and annualized incremental costs are as follows:

- Monticello-Dove Creek $150,000 over 20 years; $13,000 annual
- Piñon Mesa $580,000 over 20 years; $51,000 annual
- San Miguel Basin $330,000 over 20 years; $29,000 annual
- Cerro Summit-Cimarron-Sims Mesa $21,000 over 20 years; $1,900 annual
- Crawford $56,000 over 20 years; $4,900 annual
- Gunnison Basin $16,000 over 20 years; $1,400 annual
- Poncha Pass $12,000 over 20 years; $1,000 annual

5.3.3 Mineral and Fossil Fuel Extraction

Alternative A – Under the No Action Alternative, approximately 4.5 percent of all baseline costs would be associated with mineral and fossil fuel extraction projects, with administrative costs of consultation estimated at $430,000 over 20 years. Costs associated with jeopardy analyses in occupied habitat are considered baseline impacts. These costs would be in the San Miguel Basin and Monticello-Dove Creek Units. Eight formal consultations are forecast per year for new oil and gas well pad construction on BLM lands. Baseline administrative costs over the next 20 years and annualized baseline costs are as follows:

- Monticello-Dove Creek $170,000 over 20 years; $15,000 annual
- Piñon Mesa $0
- San Miguel Basin $260,000 over 20 years; $23,000 annual
- Cerro Summit-Cimarron-Sims Mesa $0
- Crawford $0
- Gunnison Basin $0
- Poncha Pass $0

Although the Service does not intend to preclude mineral or fossil fuel extraction as a result of listing the GUSG, comment letters from stakeholders indicates that significant impacts may result from companies' desire to avoid additional regulatory burden by foregoing production in GUSG occupied habitat. These baseline potential regional impacts are estimated at approximately $130,000,000 and 35 jobs annually in Colorado and approximately $258,000 and 5 jobs annually in Utah.

Alternative B – Under the Proposed Action, in addition to the baseline costs described under the No Action Alternative, additional administrative costs for consultation on mineral and fossil fuel extraction projects are estimated at $1,187,000 over 20 years. These costs would be in the San Miguel Basin and Monticello-Dove Creek Units. Costs associated with adverse modification analyses as well as costs of consultation in unoccupied habitat are considered incremental

impacts. Incremental administrative costs over the next 20 years and annualized incremental costs are as follows:

- Monticello-Dove Creek $1,100,000 over 20 years; $93,000 annual
- Piñon Mesa $0
- San Miguel Basin $87,000 over 20 years; $7,600 annual
- Cerro Summit-Cimarron-Sims Mesa $0
- Crawford $0
- Gunnison Basin $0
- Poncha Pass $0

Although the Service does not intend to preclude mineral or fossil fuel extraction within proposed critical habitat for the GUSG, comment letters from stakeholders indicates that significant impacts may result from companies' desire to avoid additional regulatory burden by foregoing production in GUSG critical habitat. In addition to baseline costs described under the No Action Alternative, incremental potential regional impacts are estimated at approximately $160,000,000 and 44 jobs annually in Colorado and approximately $272,000 and 5 jobs annually in Utah.

5.3.4 Residential Development

Alternative A – Under the No Action Alternative, approximately 1.3 percent of all baseline costs would be associated with residential and related development, with administrative costs of consultation and land set-aside costs estimated at $130,000 over 20 years. Baseline costs over the next 20 years and annualized baseline costs are as follows:

- Monticello-Dove Creek $14,000 over 20 years; $1,200 annual
- Piñon Mesa $550 over 20 years; $48 annual
- San Miguel Basin $30,000 over 20 years; $2,700 annual
- Cerro Summit-Cimarron-Sims Mesa $6,300 over 20 years; $560 annual
- Crawford $2,200 over 20 years; $190 annual
- Gunnison Basin $72,000 over 20 years; $6,300 annual
- Poncha Pass $580 over 20 years; $51 annual

Alternative B – Under the Proposed Action, in addition to the baseline costs described under the No Action Alternative, additional administrative costs for consultation in unoccupied habitat and land set-aside costs are estimated at $150,000 over 20 years. Incremental costs over the next 20 years and annualized incremental costs are as follows:

- Monticello-Dove Creek $56,000 over 20 years; $4,900 annual
- Piñon Mesa $640 over 20 years; $56 annual
- San Miguel Basin $43,000 over 20 years; $3,800 annual
- Cerro Summit-Cimarron-Sims Mesa $8,400 over 20 years; $740 annual
- Crawford $8,500 over 20 years; $750 annual
- Gunnison Basin $32,000 over 20 years; $2,800 annual

- Poncha Pass $95 over 20 years; $8 annual

5.3.5 Recreation

Alternative A – Under the No Action Alternative, approximately 16.3 percent of all baseline costs would be associated with recreational activities on BLM, NPS, and USFS lands. Costs associated with programmatic consultations and additional monitoring and management are estimated at $1,600,000 over 20 years. Baseline costs over the next 20 years and annualized baseline costs are as follows:

- Monticello-Dove Creek $110,000 over 20 years; $10,000 annual
- Piñon Mesa $280,000 over 20 years; $25,000 annual
- San Miguel Basin $100,000 over 20 years; $8,900 annual
- Cerro Summit-Cimarron-Sims Mesa $18,000 over 20 years; $1,600 annual
- Crawford $580,000 over 20 year; $52,000 annual
- Gunnison Basin $390,000 over 20 years; $34,000 annual
- Poncha Pass $75,000 over 20 years; $6,600 annual

Alternative B – Under the Proposed Action, in addition to the baseline costs described under the No Action Alternative, additional costs associated with programmatic consultations and monitoring and management in unoccupied habitat are estimated at $27,000 over 20 years. Incremental costs over the next 20 years and annualized incremental costs are as follows:

- Monticello-Dove Creek $2,000 over 20 years; $170 annual
- Piñon Mesa $4,900 over 20 years; $430 annual
- San Miguel Basin $1,700 over 20 years; $150 annual
- Cerro Summit-Cimarron-Sims Mesa $320 over 20 years; $28 annual
- Crawford $10,000 over 20 years; $890 annual
- Gunnison Basin $6,800 over 20 years; $600 annual
- Poncha Pass $1,300 over 20 years; $110 annual

5.3.6 Agriculture

Alternative A – Under the No Action Alternative, approximately 0.7 percent of all baseline costs would be associated with agricultural activities. Costs associated with programmatic consultations with the NRCS and the FSA are estimated at $69,000 over 20 years. Baseline costs over the next 20 years and annualized baseline costs are as follows:

- Monticello-Dove Creek $19,000 over 20 years; $1,700 annual
- Piñon Mesa $5,900 over 20 years; $520 annual
- San Miguel Basin $6,100 over 20 years; $540 annual
- Cerro Summit-Cimarron-Sims Mesa $3,100 over 20 years; $270 annual
- Crawford $3,400 over 20 years; $300 annual
- Gunnison Basin $30,000 over 20 years; $2,700 annual
- Poncha Pass $1,000 over 20 years; $90 annual

Alternative B – Under the Proposed Action, in addition to the baseline costs described under the No Action Alternative, additional costs associated with programmatic consultations and monitoring and management in unoccupied habitat are estimated at $23,000 over 20 years. Incremental costs over the next 20 years and annualized incremental costs are as follows:

- Monticello-Dove Creek $6,500 over 20 years; $570 annual
- Piñon Mesa $2,000 over 20 years; $170 annual
- San Miguel Basin $2,000 over 20 years; $180 annual
- Cerro Summit-Cimarron-Sims Mesa $1,000 over 20 years; $92 annual
- Crawford $1,100 over 20 years; $100 annual
- Gunnison Basin $10,000 over 20 years; $890 annual
- Poncha Pass $340 over 20 years; $30 annual

5.3.7 Renewable Energy

Alternative A – Under the No Action Alternative, approximately 0.2 percent of all baseline costs would be associated with renewable energy projects in the Monticello-Dove Creek area. Consultation costs are estimated at $15,000 over 20 years. Baseline costs over the next 20 years and annualized baseline costs are as follows:

- Monticello-Dove Creek $15,000 over 20 years; $1,300 annual
- Piñon Mesa $0
- San Miguel Basin $0
- Cerro Summit-Cimarron-Sims Mesa $0
- Crawford $0
- Gunnison Basin $0
- Poncha Pass $0

Alternative B – Under the Proposed Action, in addition to the baseline costs described under the No Action Alternative, additional consultations costs in unoccupied habitat are estimated at $5,000 over 20 years in the Monticello-Dove Creek area. Incremental costs over the next 20 years and annualized incremental costs are as follows:

- Monticello-Dove Creek $5,000 over 20 years; $440 annual
- Piñon Mesa $0
- San Miguel Basin $0
- Cerro Summit-Cimarron-Sims Mesa $0
- Crawford $0
- Gunnison Basin $0
- Poncha Pass $0

5.4 Tribal Lands

Alternative A – Under the No Action Alternative, one formal consultation with the Ute Mountain Ute Tribe to address operations on Pinecrest Ranch in the Gunnison Basin is estimated. Baseline impacts associated with the consideration of jeopardy are forecast to be $15,000 over 20 years.

Alternative B – Under the Proposed Action, in addition to the baseline costs described under the No Action Alternative, additional consultation associated with the consideration of adverse modification to critical habitat are forecast to cause incremental impacts of $5,000 over 20 years.

5.5 Archeological and Cultural Resources

Alternative A – Under the No Action Alternative, there would be no designation of critical habitat under the ESA. Federally supported actions that may affect the GUSG would require section 7 consultations under the jeopardy standards in all areas occupied by the species. Other than the need for these possible consultations and the potential increased protection of some sites, there would be no impacts on archaeological and cultural areas.

Alternative B – Under the Proposed Action, in addition to requirements for section 7 consultations described under the No Action Alternative, additional consultations under the jeopardy standards associated with unoccupied habitat designated as critical habitat as well as the consideration of adverse modification to critical habitat would be required. Other than the need for these possible consultations and the potential increased protection of some sites, there would be no impacts on archaeological and cultural areas.

5.6 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629 (1994), directs Federal agencies to incorporate environmental justice in their decision making process. Federal agencies are directed to identify and address as appropriate, any disproportionately high and adverse environmental effects of their programs, policies, and activities on minority or low-income populations. There are no identified adverse or beneficial effects unique to minority or low-income populations in the affected areas in Alternative A or Alternative B.

5.7 Cumulative Impacts

Designation of critical habitat for the GUSG will add minimal incremental impacts when added to other past, present, and reasonably foreseeable future actions.

We expect the cumulative impacts to be relatively small. In addition to the GUSG, several candidate, threatened, and endangered species occur in counties with GUSG proposed critical habitat (see Table 3). The Service has not designated critical habitat for the three terrestrial species whose habitat overlaps GUSG habitat (two are candidate species). Critical habitat has been designated for the four endangered Colorado River fishes, and projects in GUSG proposed critical habitat that result in water depletions may affect these fishes or their habitat. Some of the other species that occur in the same counties, but utilize different habitat, have critical habitat

designations. Therefore, the impacts to other candidate, threatened, and endangered species and their critical habitat (if designated) are not additive.

As discussed previously, Federal agencies are required to ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of the listed species, or destroy or adversely modify designated critical habitat in accordance with section 7(a)(2) of the ESA. For activities that may result in "destruction or adverse modification" of critical habitat, we currently assess these effects based on guidance provided in 2004 (Service 2004). This guidance has us assess cumulative effects based on effects of future, non-Federal actions that are reasonably certain to occur in terms of the primary constituent elements or habitat qualities essential to conservation of the species (Service 2004). Activities that jeopardize a species are defined as those actions that "reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery" of the listed species (50 CFR 402.02). According to these definitions, activities that destroy or adversely modify critical habitat would generally jeopardize the species. Therefore, designation of critical habitat has rarely resulted in greater protection than that afforded under section 7 by listing of a species, except in the unoccupied portion of critical habitat units. Section 7 consultations apply only to actions with Federal involvement (i.e., activities authorized, funded, or conducted by Federal agencies), and do not impact activities strictly under State or private authority. In practice, the designation of critical habitat for the GUSG will likely provide little additional benefits to the species in presently occupied areas because there are functioning program activities already alerting Federal agencies and the public of endangered species concerns.

Section 4(b)(2) of the ESA requires us to designate critical habitat on the basis of the best scientific and commercial information available and to consider the economic and other relevant impacts of designating a particular area as critical habitat. We may exclude areas from critical habitat upon a determination that the benefits of such exclusions outweigh the benefits of specifying such areas as part of critical habitat. We cannot exclude such areas from critical habitat if such exclusion would result in the extinction of the species concerned. We are currently conducting an analysis of the economic and other relevant impacts of Alternative B, the Proposed Action. The Draft Economic Analysis is available for public review and comment, and we have announced its availability in the Federal Register. We will consider the results of that analysis, and modifications based on public comments received, in preparing the final Environmental Assessment of proposed critical habitat designation.

We have included a summary of the environmental consequences and economic impacts from the Draft Economic Analysis in the following table. Economic benefits are not quantified in the Draft Economic Analysis and consequently are not included in the key findings below.

Table 6. Summary of environmental consequences by alternative (costs from Industrial Economics, Inc. (2013))

Impacts	Alternative A: No Action	Alternative B: Proposed Action
GUSG	Listing GUSG would provide protection via section 7 consultations	May be beneficial effects beyond those associated with listing the GUSG, especially in areas currently unoccupied

	under jeopardy standards in currently occupied areas.	by GUSG, but proposed for critical habitat. Designation of critical habitat can help focus conservation activities for GUSG.
Other Candidate, Threatened, and Endangered Species	Listing GUSG may provide indirect protection to species that use similar habitats.	May be beneficial effects beyond those associated with listing, especially in areas currently unoccupied by GUSG, but proposed for critical habitat. May help focus conservation activities for listed species.
Other Fish, Wildlife, and Plant Species	Listing GUSG may provide indirect protection to species that use similar habitats.	May be beneficial effects beyond those associated with listing, especially in areas currently unoccupied by GUSG, but proposed for critical habitat. May indirectly help due to conservation activities for listed species.
Transportation	Listing GUSG may incur baseline costs of $6,100,000 over 20 years associated with section 7 consultations under jeopardy standards in currently occupied areas.	May incur baseline costs of $6,100,000 over 20 years associated with section 7 consultations under jeopardy standards in currently occupied areas; and incremental costs of $1,300,000 over 20 years associated with adverse modification analyses as well as consultation in unoccupied critical habitat.
Livestock Grazing	Listing GUSG may incur baseline costs of $1,200,000 over 20 years associated with section 7 consultations under jeopardy standards and possible grazing restrictions in currently occupied areas.	May incur baseline costs of $1,200,000 over 20 years associated with section 7 consultations under jeopardy standards and possible grazing restrictions in currently occupied areas; and incremental costs of $1,200,000 over 20 years associated with adverse modification analyses as well as consultation in unoccupied critical habitat.
Mineral and Fossil Fuel Extraction	Listing GUSG may incur baseline costs of $430,000 over 20 years associated with section 7 consultations under jeopardy standards in currently occupied areas. If companies forego production due to listing may incur additional costs of $130,258,000.	May incur baseline costs of $430,000 over 20 years associated with section 7 consultations under jeopardy standards in currently occupied areas; and incremental costs of $1,100,000 over 20 years associated with adverse modification analyses as well as consultation in unoccupied critical habitat. If companies forego production due to listing may incur additional costs of $130,258,000 as well as additional incremental costs of $160,272,000.

Residential Development	Listing GUSG may incur baseline costs of $130,000 over 20 years associated with section 7 consultations and possible land set-aside costs in currently occupied areas.	May incur baseline costs of $130,000 over 20 years associated with section 7 consultations and possible land set-aside costs in currently occupied areas; and incremental costs of $150,000 over 20 years associated with adverse modification analyses as well as consultation in unoccupied critical habitat.
Recreation	Listing GUSG may incur baseline costs of $1,600,000 over 20 years associated with section 7 consultations and possible monitoring and management in currently occupied areas.	May incur baseline costs of $1,600,000 over 20 years associated with section 7 consultations and possible monitoring and management in currently occupied areas; and incremental costs of $27,000 over 20 years associated with adverse modification analyses as well as consultation in unoccupied critical habitat.
Agriculture	Listing GUSG may incur baseline costs of $69,000 over 20 years associated with section 7 consultations in currently occupied areas.	May incur baseline costs of $69,000 over 20 years associated with section 7 consultations in currently occupied areas; and incremental costs of $23,000 over 20 years associated with adverse modification analyses as well as consultation in unoccupied critical habitat.
Renewable Energy	Listing GUSG may incur baseline costs of $15,000 over 20 years associated with section 7 consultations in currently occupied areas.	May incur baseline costs of $15,000 over 20 years associated with section 7 consultations in currently occupied areas; and incremental costs of $5,000 over 20 years associated with adverse modification analyses as well as consultation in unoccupied critical habitat.
Tribal Lands	Listing GUSG may incur baseline costs of $15,000 over 20 years associated with section 7 consultations in currently occupied areas.	May incur baseline costs of $15,000 over 20 years associated with section 7 consultations; and incremental costs of $5,000 over 20 years associated with adverse modification analyses.
Archeological and Cultural Resources	Listing GUSG may provide indirect protection to sites located in occupied habitat. Minimal costs.	Listing GUSG may provide indirect protection to sites located in occupied habitat. Designating critical habitat in unoccupied areas may indirectly protect additional sites. Minimal costs.
Environmental Justice	No change to existing situation.	No change to existing situation.

Table 7 provides information on the relative distribution of proposed critical habitat and the proportional costs incurred for each unit of proposed critical habitat.

Table 7. Comparison of proposed critical habitat units

Critical Habitat Unit	Percent of 2012 GUSG Population	Percent of Proposed Critical Habitat	Percent of Incremental Costs	Percent of Total Costs
Monticello-Dove Creek	3	20	45	26
Piñon Mesa	1	14	16	17
San Miguel Basin	4	10	12	9
Cerro Summit-Cimarron-Sims Mesa	1	4	3	3
Crawford	2	6	19	22
Gunnison Basin	88	43	4	18
Poncha Pass	<1	3	<1	5

6.0 Council on Environmental Quality Analysis of Significance

Under Council on Environmental Quality (CEQ) 40 CFR Part 1508.27, the determination of "significantly" requires consideration of both context and intensity.

6.1 Context

Impacts of the action, although long-term, will not be national, only regional and mostly local in context; and any impacts that occur are expected to be small.

6.2 Intensity

Intensity is defined by CEQ as referring to the severity of impact. The following 10 points identified by CEQ were considered in evaluating intensity:

1. We foresee some additional negative impacts beyond what would be considered through section 7 consultation if the GUSG was listed. These additional negative impacts would largely occur in unoccupied portions of proposed critical habitat. There also may be perceived negative impacts, but we are carrying out a public outreach program, which should address and minimize most of those misconceptions. There may be some beneficial impacts to the environment.

2. This designation will not have a discernible impact on human safety because this is an administrative action only, without any physical changes made to the landscape.

3. Although several areas designated as critical habitat are in proximity to parklands, rangeland, farmland, wetlands, scenic areas, and ecologically critical areas, it is unlikely that adverse impacts will occur to these areas because this is an administrative action only, without any physical changes made to the landscape.

4. There is a perception by some segments of the public that critical habitat designation will severely limit property rights; however, critical habitat designation has little or no effect on private actions on private land that do not involve Federal approval or action.

5. The Service has designated critical habitat for other species in other regions in the recent past and we are familiar with the associated effects. Therefore, we anticipate minimal effects to the human environment and we are certain this action does not involve any unique or unknown risks.

6. This designation of critical habitat is not expected to set any precedents for future actions with significant effects or represent a decision in principle about a future consideration because critical habitat has been designated before for other species, as required by law.

7. This designation of critical habitat will be additive (cumulative) to critical habitat that has been, and will be, designated for other species. However, it is the Service's conclusion that the adverse impacts of any and all critical habitat designations are small, and therefore, insignificant due to the existing impacts, both beneficial and adverse, already resulting from the listing of the species involved.

8. This designation will have minimal adverse effects to National Register of Historic Places or other cultural sites.

9. Most impacts from this designation of critical habitat will be beneficial to endangered and threatened species, particularly the GUSG. Designation of critical habitat can help focus conservation activities for listed species by identifying areas essential to conserve the species. Designation of critical habitat also alerts the public, as well as land-managing agencies, to the importance of these areas.

10. This designation of critical habitat will not violate any Federal, State, or local laws or requirements imposed for the protection of the environment.

7.0 Contacts and Coordination with Others

This proposed designation of critical habitat has and will be coordinated with Federal agencies, Tribes, the States of Colorado and Utah, Counties, and other interested parties through letters, emails, telephone calls, and our web site. Federal contacts include the BLM Colorado State Office, the BLM Utah State Office, the USFS Washington D.C. Office, and the NPS Curecanti National Recreation Area and Black Canyon of the Gunnison National Park. Tribal contacts

include the Ute Mountain Ute Tribe. State contacts include Colorado Parks and Wildlife, Colorado Department of Agriculture, Utah Governor's Office, and Arizona Game and Fish Department. County contacts include Boards of County Commissioners from Delta, Dolores, Gunnison, Hinsdale, Mesa, Montrose, Saguache, San Miguel, and Ouray Counties in Colorado, and San Juan County in Utah.

The following is a list of individuals, organizations, and public agencies that will be notified of the publication of the final rule to designate critical habitat. Each of these entities was contacted concerning development of this Environmental Assessment and the proposed rule to designate critical habitat for the GUSG, and/or provided comments on the proposed rules.

Federal Agencies

Department of Agriculture
- U.S. Forest Service, Region 2 (Rocky Mountain Region), Lakewood, Colorado
- U.S. Forest Service, Region 4 (Intermountain Region), Ogden, Utah
- Grand Mesa, Uncompahgre, and Gunnison National Forest, Delta, Colorado
- Natural Resources Conservation Service, Colorado State Office
- Natural Resources Conservation Service, Utah State Office

Department of Interior
- Bureau of Land Management, Colorado State Office
- Bureau of Land Management, Utah State Office
- National Park Service, Curecanti National Recreation Area and Black Canyon of the Gunnison National Park, Colorado
- U.S. Fish and Wildlife Service, Private Lands Coordinator
- U.S. Fish and Wildlife Service, Law Enforcement Division

Tribes

- Ute Mountain Ute Tribe

State Agencies

- Colorado Department of Natural Resources
- Colorado Parks and Wildlife
- Colorado Department of Agriculture
- Utah Department of Natural Resources

Governors

- Colorado, John Hickenlooper
- Utah, Gary Herbert

County Commissioners

Colorado County Commissioners from the following counties: Chaffee, Delta, Dolores, Gunnison, Hinsdale, Mesa, Montrose, Ouray, Saguache, and San Miguel
Utah County Commissioners from the following counties: Grand and San Juan

Local Governments and Private Groups

City of Gunnison
County of San Miguel, Colorado
Center for Biological Diversity
WildEarth Guardians
Public Employees for Environmental Responsibility
National Audubon society
The Larch Company
Center for Native Ecosystems
Sinapu
Sagebrush Sea Campaign
Black Canyon Audubon Society
Sheep Mountain Alliance

8.0 List of Contributors

The principal authors of this document are staff from the Mountain-Prairie Regional Office, U.S. Fish and Wildlife Service and staff from the Western Colorado Field Office, U.S. Fish and Wildlife Service.

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U.S. Fish and Wildlife Service. 2004. Application of the "destruction or adverse modification" standard under section 7(a)(2) of the Endangered Species Act. Letter to the Regional Directors for the Director of the U.S. Fish and Wildlife Service, Washington, D.C. dated December 9, 2004. 3 pp.

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U.S. Fish and Wildlife Service. 2013. Proposed rule to list the Gunnison sage-grouse (*Centrocercus minimus*) as endangered. January 11, 2013 50 CFR Part 17. Federal Register Vol 78, No. 8. Pp. 2486–2538.

U.S. Fish and Wildlife Service. 2013. Proposed rule to designate critical habitat for the Gunnison sage-grouse (*Centrocercus minimus*) as threatened or endangered. January 11, 2013 50 CFR Part 17. Federal Register Vol 78, No. 8. Pp. 2540–2570.

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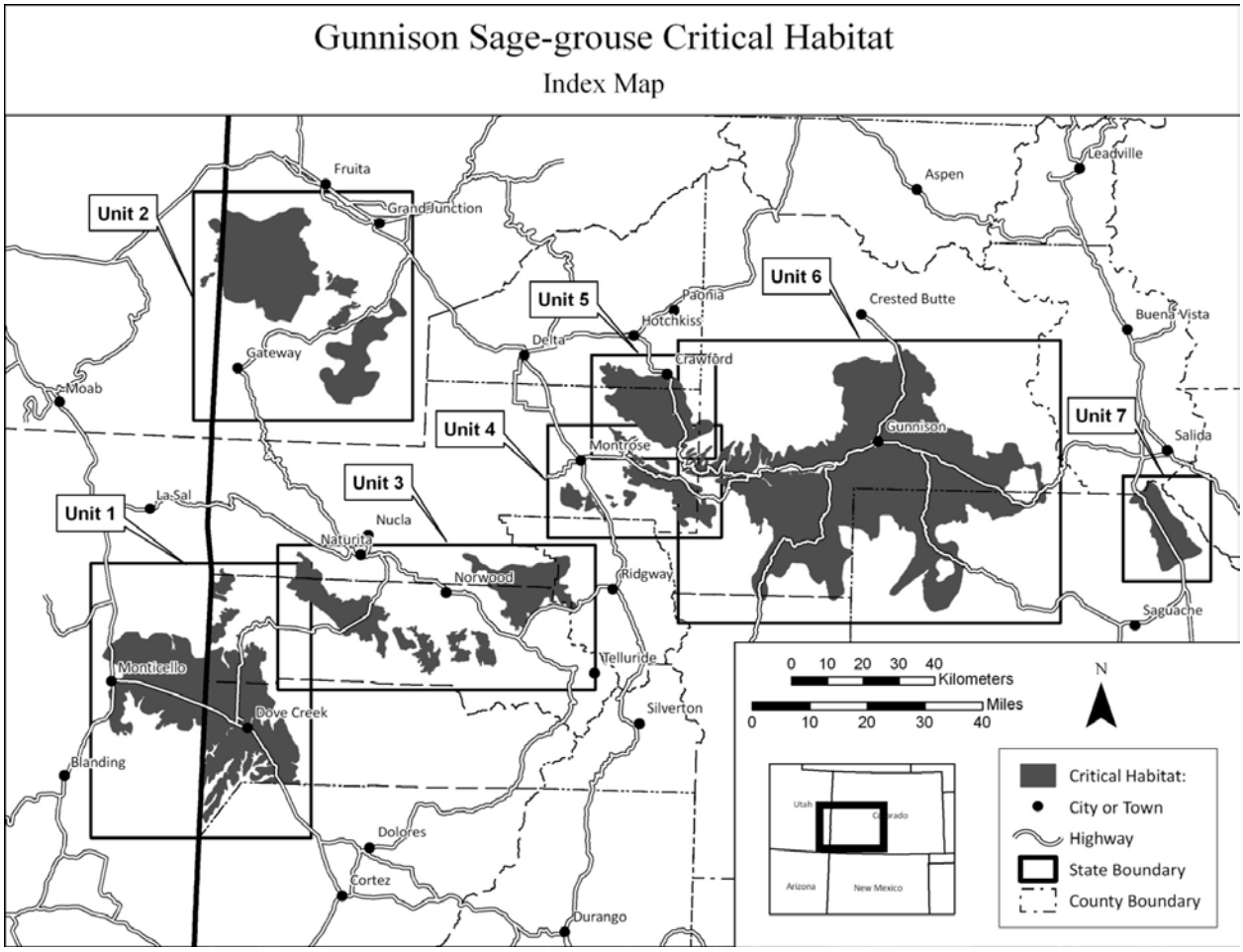
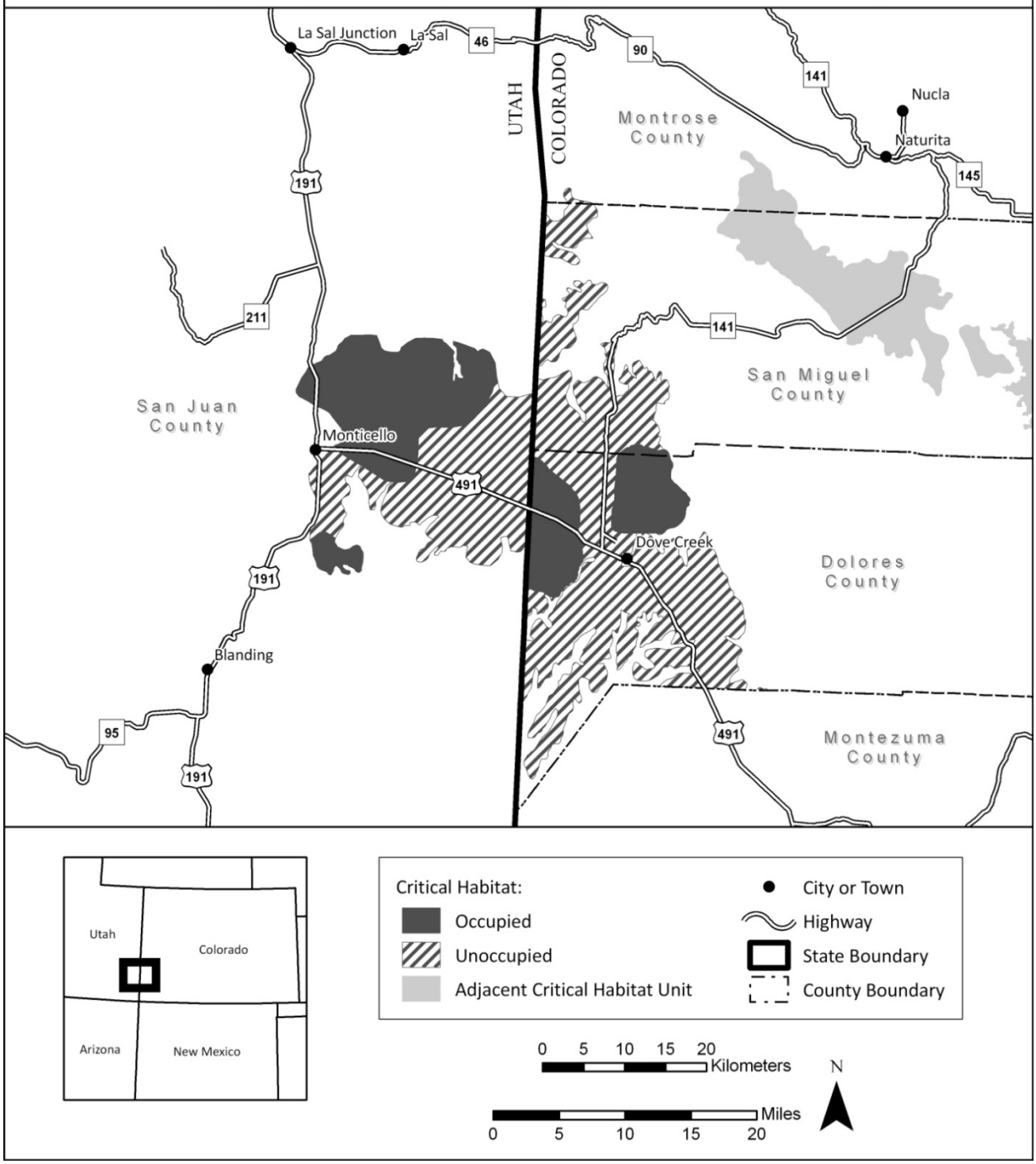
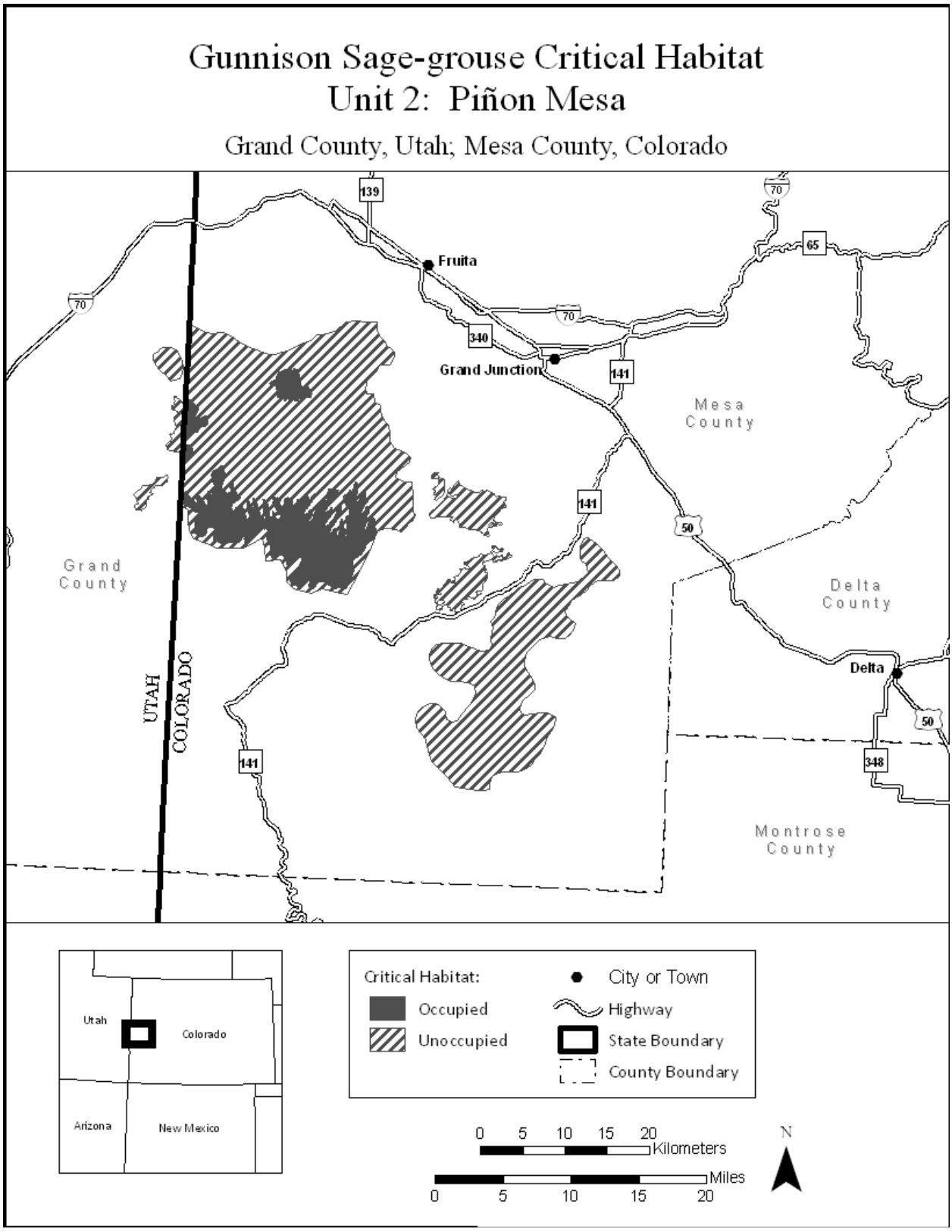
10. Maps of Proposed Critical Habitat



Gunnison Sage-grouse Critical Habitat
Unit 1: Monticello-Dove Creek

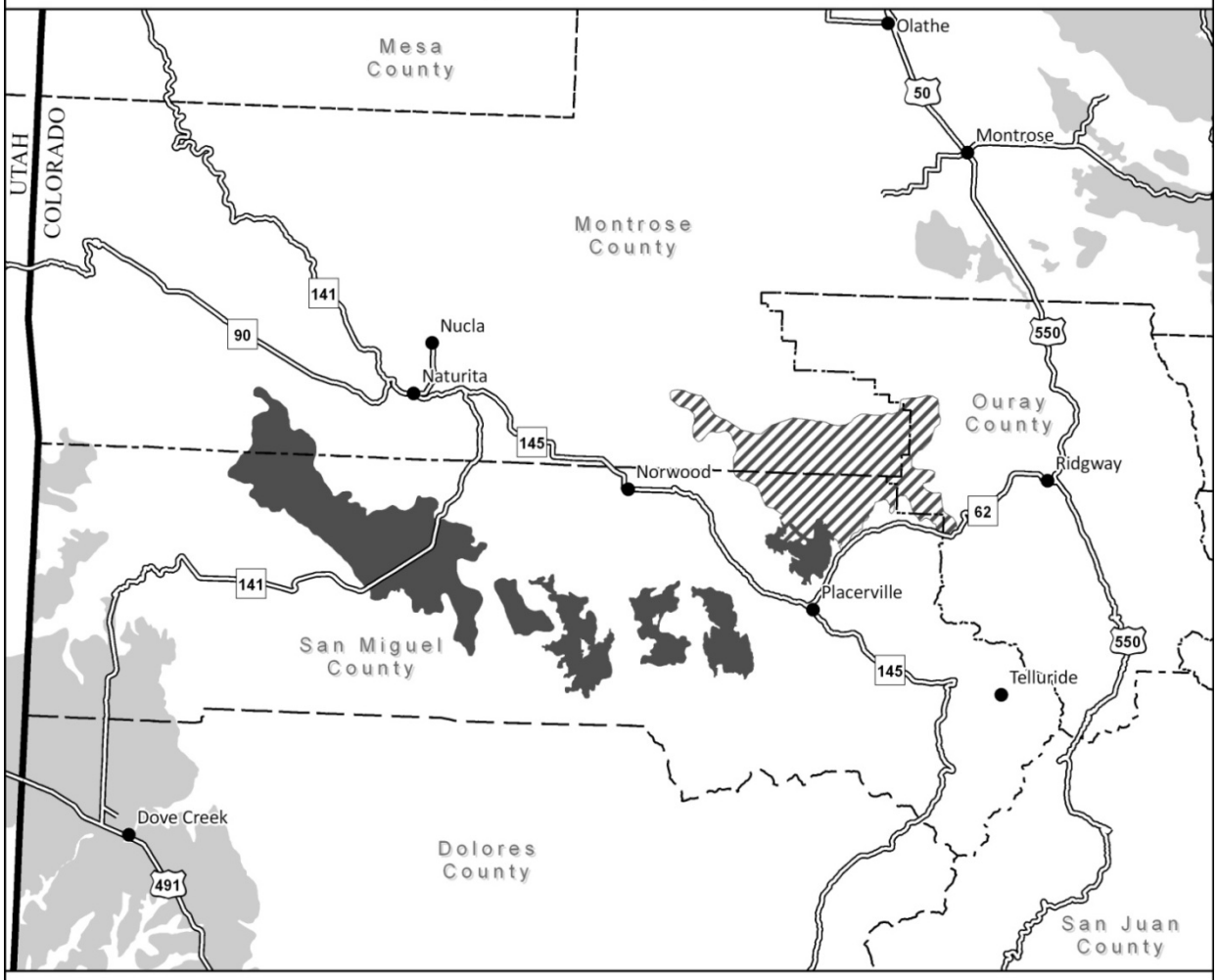
San Juan County, Utah; Montrose, San Miguel, and Dolores Counties, Colorado




Gunnison Sage-grouse Critical Habitat
Unit 2: Piñon Mesa
Grand County, Utah; Mesa County, Colorado
139
70
65
Fruita
340
Grand Junction
141
Mesa
County
50
Grand
County
Delta
County
UTAH
COLORADO
Delta
348
Montrose
County
Utah
Colorado
Arizona
New Mexico
Critical Habitat:
Occupied
Unoccupied
City or Town
Highway
State Boundary
County Boundary
0 5 10 15 20
Kilometers
Miles
N

Gunnison Sage-grouse Critical Habitat
Unit 3: San Miguel Basin

Montrose, San Miguel, and Ouray Counties, Colorado



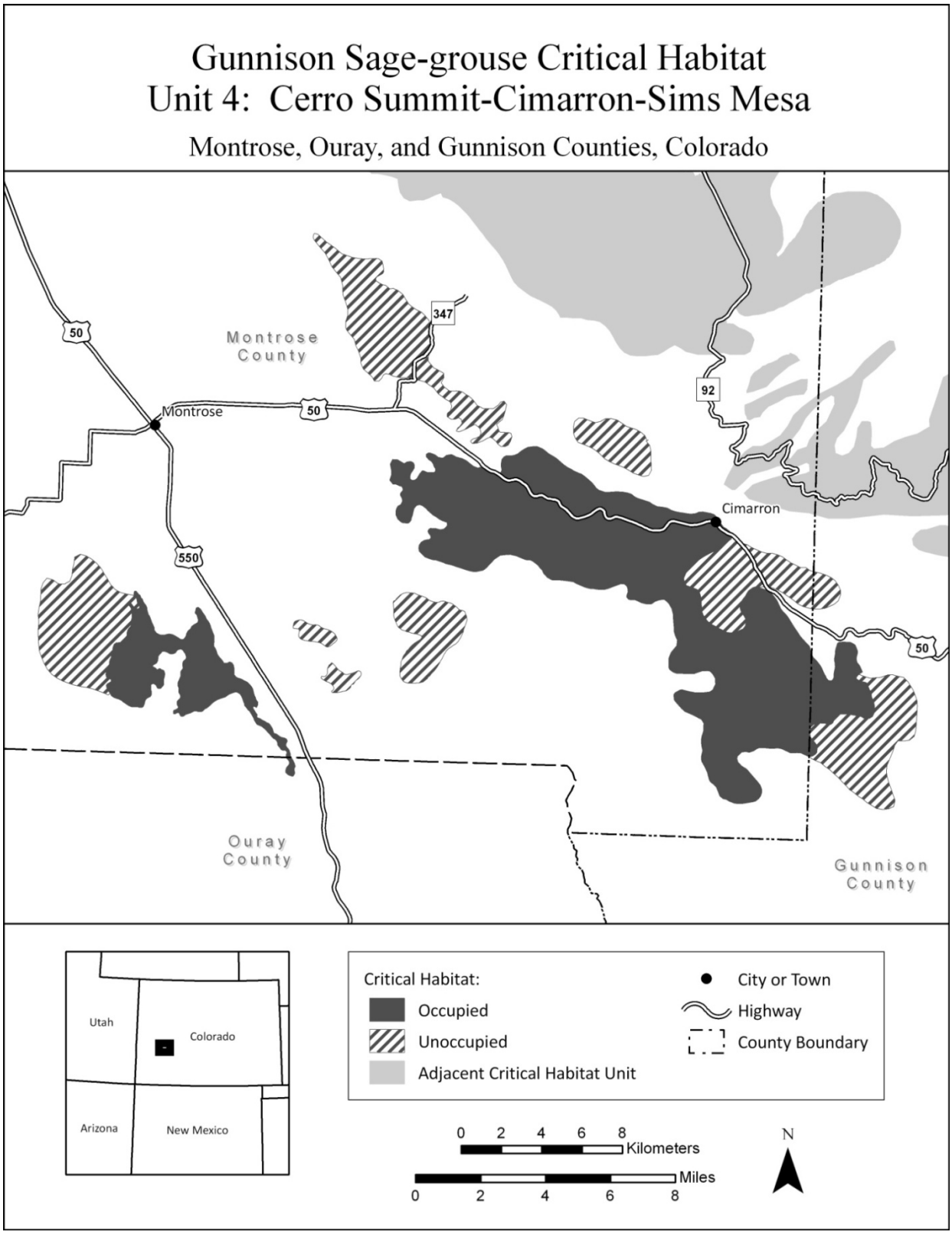
Critical Habitat:
- Occupied
- Unoccupied
- Adjacent Critical Habitat Unit

- City or Town
- Highway
- County Boundary

0 6 12 18 24 Kilometers

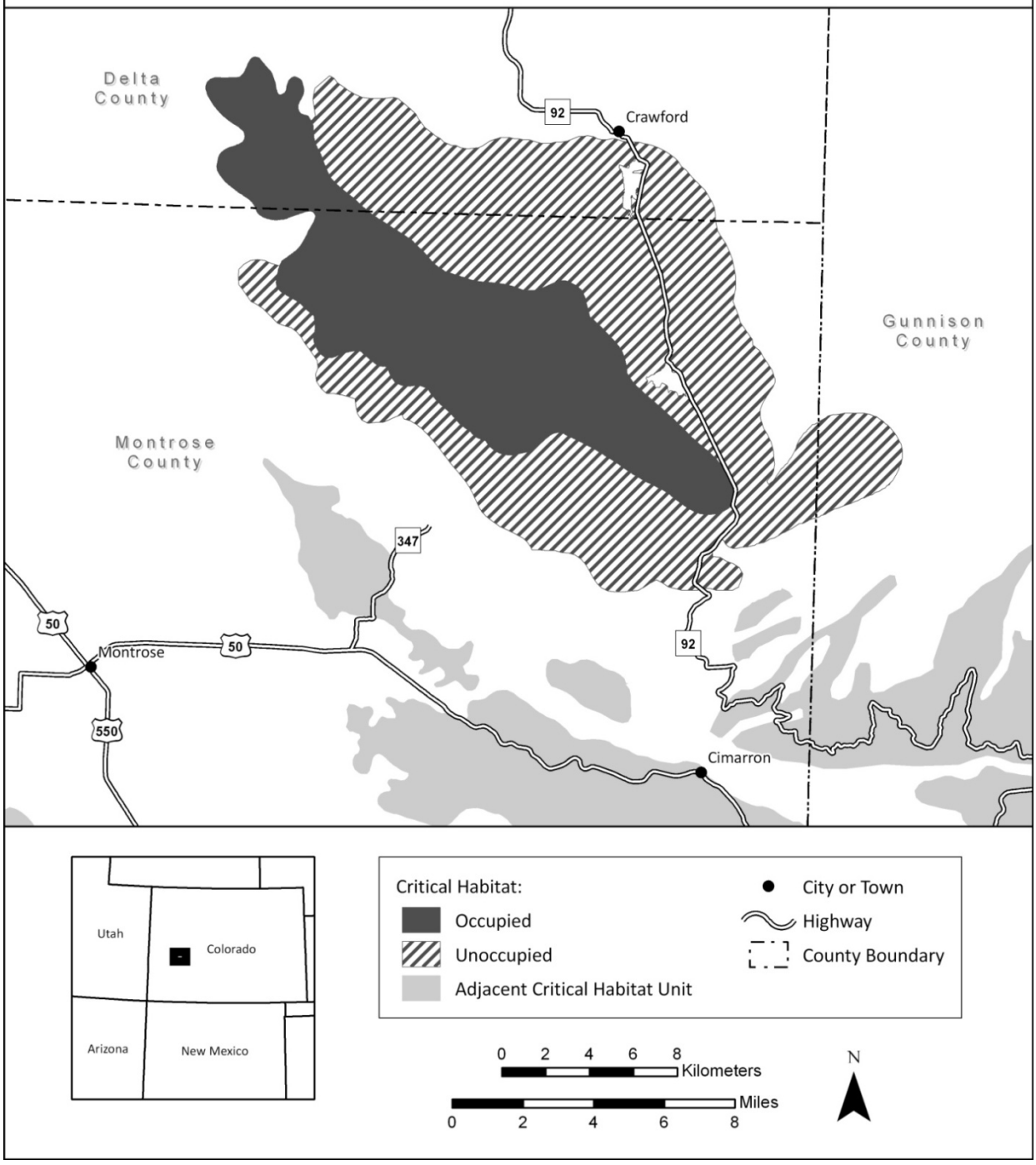
0 6 12 18 24 Miles

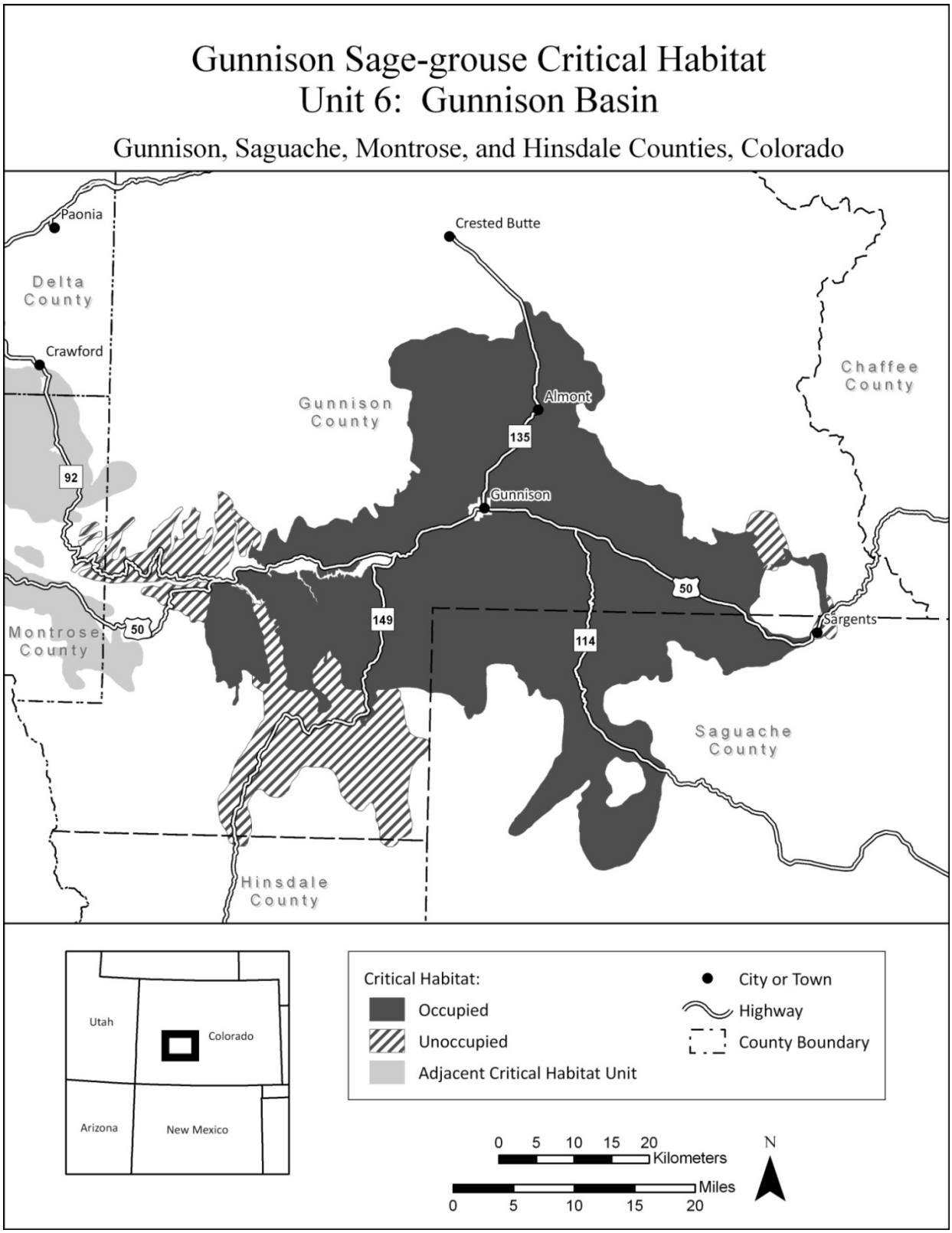
N

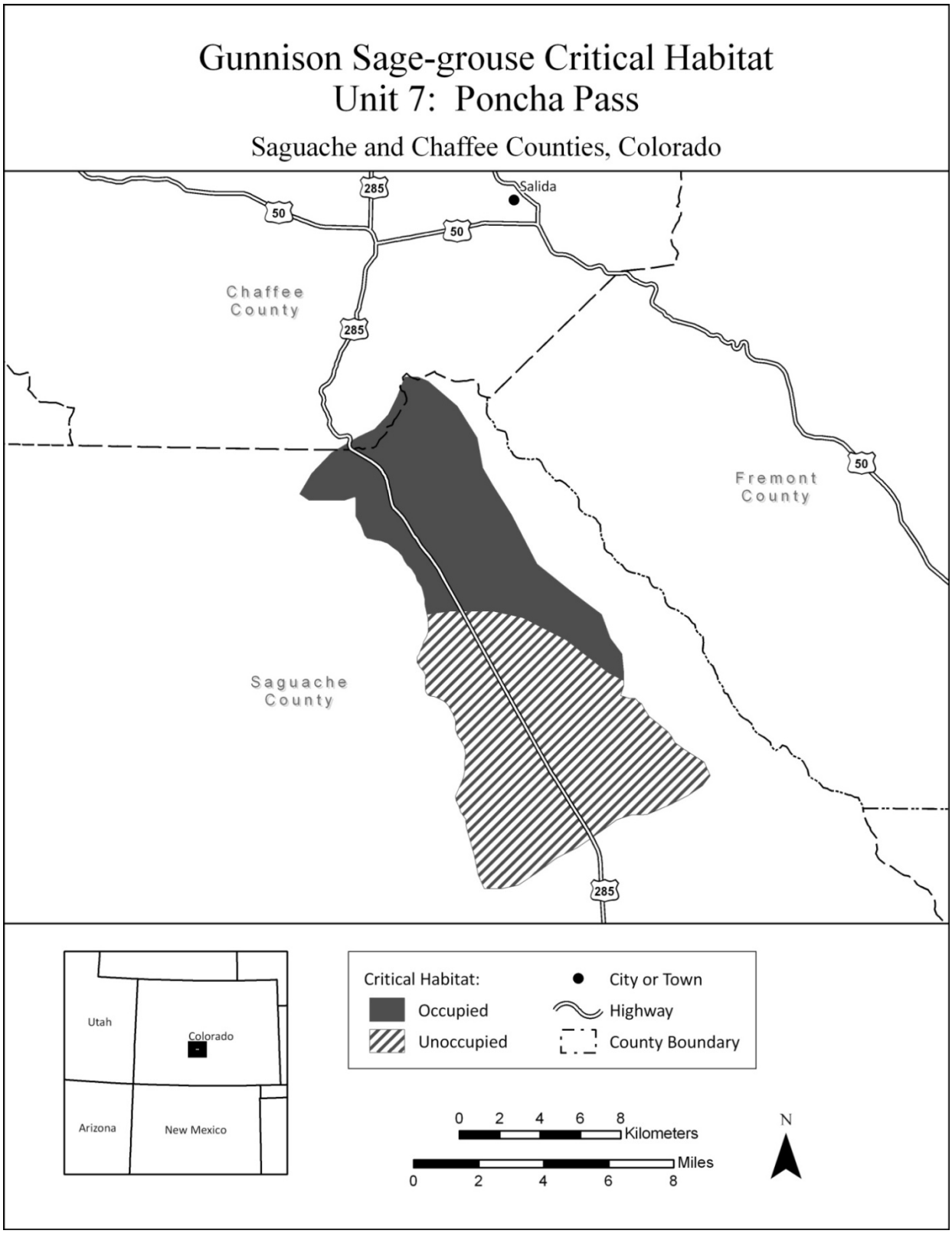

Gunnison Sage-grouse Critical Habitat
Unit 4: Cerro Summit-Cimarron-Sims Mesa
Montrose, Ouray, and Gunnison Counties, Colorado
50
347
Montrose County
Montrose
50
92
Cimarron
550
50
Ouray County
Gunnison County
Utah
Colorado
Arizona
New Mexico
Critical Habitat:
Occupied
Unoccupied
Adjacent Critical Habitat Unit
City or Town
Highway
County Boundary
0 2 4 6 8 Kilometers
0 2 4 6 8 Miles
N

Gunnison Sage-grouse Critical Habitat
Unit 5: Crawford

Delta, Montrose, and Gunnison Counties, Colorado




Gunnison Sage-grouse Critical Habitat
Unit 6: Gunnison Basin
Gunnison, Saguache, Montrose, and Hinsdale Counties, Colorado
Paonia
Crested Butte
Delta County
Crawford
Chaffee County
Gunnison County
Almont
135
92
Gunnison
50
149
114
Sargents
Montrose County
50
Saguache County
Hinsdale County
Utah
Colorado
Arizona
New Mexico
Critical Habitat:
Occupied
Unoccupied
Adjacent Critical Habitat Unit
City or Town
Highway
County Boundary
0 5 10 15 20
Kilometers
Miles
0 5 10 15 20
N


Gunnison Sage-grouse Critical Habitat
Unit 7: Poncha Pass
Saguache and Chaffee Counties, Colorado
Salida
285
50
50
285
Chaffee
County
50
Fremont
County
Saguache
County
285
Utah
Colorado
Arizona
New Mexico
Critical Habitat:
Occupied
Unoccupied
City or Town
Highway
County Boundary
0 2 4 6 8
Kilometers
0 2 4 6 8
Miles
N