

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17**

RIN 1018-AV05

Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Sierra Nevada Bighorn Sheep (*Ovis canadensis californiana*) and Proposed Taxonomic Revision**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to designate critical habitat for the Sierra Nevada bighorn sheep (*Ovis canadensis californiana*) under the Endangered Species Act of 1973, as amended (Act). In total, approximately 417,577 acres (ac) (168,992 hectares (ha)) fall within the boundaries of the proposed critical habitat designation. The proposed critical habitat is located in Tuolumne, Mono, Fresno, Inyo, and Tulare counties, California. We also propose a taxonomic revision of the listed entity from distinct population segment (DPS) to subspecies, *Ovis canadensis sierrae*, based on recent published information.

DATES: We will accept comments from all interested parties until September 24, 2007. We must receive requests for public hearings, in writing, at the address shown in the **ADDRESSES** section by September 10, 2007.

ADDRESSES: If you wish to comment on this proposed rule, you may submit your comments and materials by any one of several methods:

1. By mail or hand-deliver to Robert D. Williams, Field Supervisor, U.S. Fish and Wildlife Service, Nevada Fish and Wildlife Office, 1340 Financial Boulevard, Suite 234, Reno, NV 89502-7147.

2. By electronic mail (e-mail) to snbighorn@fws.gov. Please see the Public Comments Solicited section below for other information about electronic filing.

3. By fax to the attention of Robert D. Williams, Field Supervisor at 775-861-6301.

4. Via the Federal eRulemaking Portal at: <http://www.regulations.gov>. Follow the instructions for submitting comments.

FOR FURTHER INFORMATION CONTACT: Robert D. Williams, Field Supervisor, Nevada Fish and Wildlife Office, at the address or telephone number listed under **ADDRESSES**. If you use a telecommunications device for the deaf

(TDD), call the Federal Information Relay Service (FIRS) at 800-877-8339.

SUPPLEMENTARY INFORMATION:**Public Comments Solicited**

We intend that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, we seek comments or suggestions on this proposed rule. We particularly seek comments concerning:

(1) The reasons why we should or should not designate habitat as “critical habitat” under section 4 of the Act (16 U.S.C. 1531 *et seq.*), including whether the benefit of designation will outweigh threats to the species caused by designation such that the designation of critical habitat is prudent;

(2) Specific information on:

- The amount and distribution of Sierra Nevada bighorn sheep habitat,
- What areas should be included in the designations that were occupied at the time of listing that contain the features that are essential for the conservation of the subspecies and why, and
- What areas not occupied at the time of listing are essential to the conservation of the subspecies and why;

(3) Any proposed critical habitat areas covered by existing or proposed conservation or management plans that we should consider for exclusion from the designation under section 4(b)(2) of the Act. We specifically request comment on the appropriateness of including or excluding lands covered by: (a) The Sierra Nevada Bighorn Sheep Recovery and Conservation Plan (Sierra Bighorn Sheep Interagency Advisory Group 1984); (b) the Bighorn Sheep Management Plan (National Park Service 1986); (c) the Inyo National Forest Resource & Management Plan (U.S. Forest Service 1988); and (d) the Conservation Strategy for Sierra Nevada Bighorn Sheep (Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997). We request comment on how these plans do or do not benefit or protect the Sierra Nevada bighorn sheep, or its primary constituent elements, and if the benefit or protection provided by these plans is equal to or greater than the benefit that would be provided by designation of critical habitat;

(4) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat;

(5) Any foreseeable economic, national security, or other potential impacts resulting from the proposed designation and, in particular, any impacts on small entities, and information about the benefits of

including or excluding any areas that exhibit those impacts; and

(6) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods (see **ADDRESSES**). If you use e-mail to submit your comments, please include “Attn: Sierra Nevada bighorn sheep” in your e-mail subject header. If you do not receive a confirmation from the system that we have received your e-mail, contact us directly by calling our Nevada Fish and Wildlife Office at 775-861-6300. Please note that comments must be received by the date specified in the **DATES** section in order to consider them in our final determination and that the e-mail address snbighorn@fws.gov will be closed out at the termination of the public comment period.

Before including your address, phone number, e-mail address, or other personal identifying information in your comment—you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comments to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Background

It is our intent to discuss only those topics directly relevant to the designation of critical habitat in this proposed rule. For more information on the Sierra Nevada bighorn sheep, refer to the final listing rule published in the **Federal Register** on January 3, 2000 (65 FR 20). However, some of this information will need to be cited or discussed in the substantive analyses below, where appropriate, such as the description of the primary constituent elements (PCEs) and proposed critical habitat units.

The bighorn sheep (*Ovis canadensis*) is a large mammal in the family Bovidae described by Shaw in 1804 (Shackleton 1985, p. 1). Cowen (1940, pp. 519-569) recognized several subspecies based on geography and skull measurements. Recent genetic (Ramey 1993, pp. 82-86; 1995, pp. 432-434; Boyce *et al.* 1996, pp. 423-426, 429; Gutierrez-Espeleta *et al.* 1998, pp. 7-9, 11) and morphological data (Wehausen and Ramey 1993, pp. 4-8; 2000, pp. 148-153), and review and reanalysis of Cowan’s data (Ramey 1993,

p. 83), do not support Cowan's original subspecies differentiation. Ramey (1993, pp. 71–72; 1995, p. 432) found, based on mitochondrial DNA, bighorn sheep from the Sierra Nevada to be more allied with sheep occupying the adjacent desert area than those to the north. Ramey (1993, pp. 67–68; 1995, pp. 433, 435) also found Sierra Nevada bighorn sheep to be a distinctive group in the desert region extending east to Utah and New Mexico and south to northern Mexico. Recent morphometric analyses of skull shape confirm genetic results (Wehausen and Ramey 2000, pp. 148–153). Based on both genetic and morphometric data, Wehausen and Ramey (2000, p. 156) reassigned California bighorn sheep populations outside of the Sierra Nevada to other subspecies, thus recognizing bighorn sheep in the Sierra Nevada as its own subspecies. In a recent investigation of the taxonomy of Sierra Nevada bighorn sheep, Wehausen *et al.* (2005, p. 217) reexamined the history of bighorn sheep nomenclature and concluded, based on the original type specimen, that the correct nomenclature for native sheep in the central and southern Sierra Nevada mountains of California is *Ovis canadensis sierrae*.

Sierra Nevada bighorn sheep inhabit portions of the Sierra Nevada located along the eastern boundary of California in Tuolumne, Mono, Fresno, Inyo, and Tulare counties. Habitat occurs from the eastern base of the range as low as 4,790 feet (ft) (1,460 meters (m)) to its peaks above 14,100 ft (4,300 m) (Wehausen 1980, pp. 3, 82). Based on recent modeling efforts, discussed further in the Criteria Used To Identify Critical Habitat section, Sierra Nevada bighorn sheep habitat, as well as areas necessary to provide connectivity between winter and summer ranges, occur as low as 4,000 ft (1,219 m) in the southern portion of its range (Johnson *et al.* 2005). Sierra Nevada bighorn sheep inhabit open areas where the land is rocky, sparsely vegetated, and characterized by steep slopes and canyons (Wehausen 1980, p. 81; Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997, p. 5). Wehausen (1980, pp. 18–25) provides a detailed description of Sierra Nevada bighorn sheep habitat throughout its range. They prefer open ground to better detect predators and allow enough time to reach steep, rocky terrain (escape habitat) (Wehausen 1980, p. 81). Forests and thick brush are usually avoided if possible (65 FR 21; January 3, 2000). Most of the sheep live at higher elevations (10,000 to 14,000 ft (3,050 to 4,270 m)) in the subalpine and alpine areas during the summer (65 FR

21; January 3, 2000). During winter, these sheep occupy high elevation, windswept ridges and tend to prefer south-facing slopes where snow melts more readily (Jones 1950, pp. 44–45; McCullough and Schneegas 1966, p. 71; Wehausen 1980, pp. 86–87) or migrate to lower elevations (4,800 ft (1,460 m)) in the sagebrush-steppe areas to avoid deep snow and to find forage.

Sierra Nevada bighorn sheep are gregarious with group size and composition depending on gender and season. Spatial segregation by gender occurs outside of the mating season. Ewes generally remain with the same band in which they were born (Cowan and Geist 1971, pp. 80–81). Males older than two years of age remain apart from females and younger males for most of the year (Jones 1950, p. 50; Cowan and Geist 1971, p. 65; Wehausen 1980, p. 109). During the winter, the groups come together and concentrate in suitable winter habitat.

Breeding takes place in late fall, generally November and December (Jones 1950, pp. 63–64; Cowan and Geist 1971, p. 64; Wishart 1978, p. 165). Lambing occurs between late April and early July (Wehausen 1996, p. 475), on safe, precipitous, rocky slopes (Wehausen 1980, p. 95); most lambs in the Sierra Nevada are born in May and June (Wehausen 1980, p. 94; 1996, p. 475). Ewes and lambs often occupy steep terrain that provides a diversity of exposures and slopes for escape cover (65 FR 21; January 3, 2000). The average lifespan is 9 to 11 years for both males and females (Cowan and Geist 1971, p. 68; Wehausen 1980, p. 76).

Bighorn sheep are primarily diurnal (Jones 1950, pp. 54–57). They are primarily grazers; however, they may browse woody vegetation at times. Plants consumed include various grasses, browse, and herbaceous plants, depending on season and location (Wehausen 1980, pp. 80–93). Naturally occurring salt/mineral licks provide necessary minerals for bone and muscle growth.

While distribution of bighorn sheep is naturally fragmented on the landscape, the maintenance of migration corridors (space) is important to allow genetic exchange between Sierra Nevada bighorn sheep herds. The population ecology of bighorn sheep has been described as a metapopulation with geographically distinct herds interacting in a network (Schwartz *et al.* 1986, p. 184; Bleich *et al.* 1990, pp. 384–388). The movements by rams between herds can counteract the effects of inbreeding that can develop with small, isolated populations (Schwartz *et al.* 1986, pp. 182–185).

Previous Federal Actions

On April 20, 1999, we published an emergency rule listing the Sierra Nevada DPS of the California bighorn sheep (SNBS) as endangered (64 FR 19300) providing emergency protections to the DPS until such time that we could complete the normal listing process. We also published a proposed rule to list the DPS on the same date (64 FR 19333). On January 3, 2000, we published a final rule listing the SNBS DPS as endangered (65 FR 20). The emergency rule stated that the designation of critical habitat was not determinable due to lack of information sufficient to perform the required analysis of impacts of the designation. In the final listing rule we stated our revised determination: That there is sufficient information to perform the required impact analysis and that the designation of critical habitat is prudent. During our current efforts to propose critical habitat for the Sierra Nevada bighorn sheep, we noticed that the final listing rule published in 2000 (65 FR 20) inadvertently listed this entity as a subspecies rather than as a DPS. While the listing rule addressed the DPS question, we failed to include the DPS language in the table found in the regulatory section of the rule. However, as stated above, based on the work of Wehausen and Ramey (2000, p. 156) and Wehausen *et al.* (2005, p. 217), the Sierra Nevada bighorn sheep is recognized as a subspecies, and the correct nomenclature is *Ovis canadensis sierrae*. Therefore, we are formally proposing a taxonomic revision to amend the final listing rule from DPS to subspecies, *Ovis canadensis sierrae*. Therefore, within this proposed critical habitat designation rule we will refer to the listed entity as a subspecies and not as a DPS.

On July 30, 2003, we made available the Service's Draft Recovery Plan for the Sierra Nevada Bighorn Sheep (*Ovis canadensis californiana*) (68 FR 44808). On October 9, 2003, we re-opened the comment period for the draft Recovery Plan (68 FR 58355). We are currently working with land management agencies and stakeholders to finalize the Recovery Plan by the summer of 2007.

On December 8, 2005, the Center for Biological Diversity filed a complaint based on the Service's failure to designate critical habitat for this subspecies within the time mandated under the Act (*Center for Biological Diversity v. U.S. Fish and Wildlife Service, et al.* Case No. 2:05-CB-02492-DFL-KJM). On June 6, 2006, the Service entered into a settlement agreement with the Center for Biological Diversity

to submit a proposed critical habitat designation for this subspecies for publication in the **Federal Register** by July 17, 2007, and to submit a final determination on the proposed critical habitat designation for publication by July 17, 2008.

For more information on previous Federal actions concerning Sierra Nevada bighorn sheep, refer to the final listing rule published in the **Federal Register** on January 3, 2000 (65 FR 20).

Critical Habitat

Critical habitat is defined in section 3 of the Act as:

(1) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) essential to the conservation of the species and

(b) that may require special management considerations or protection; and

(2) 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.

Conservation, as defined under section 3 of the Act, means to use and the use of all methods and procedures that are necessary to bring any endangered species or threatened species to the point at which the measures provided under the Act are no longer necessary.

Critical habitat receives protection under section 7 of the Act through the prohibition against Federal agencies carrying out, funding, or authorizing the destruction or adverse modification of critical habitat. Section 7 of the Act requires consultation on Federal actions that may affect critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow government or public access to private lands. Section 7 of the Act is a purely protective measure and does not require implementation of restoration, recovery, or enhancement measures.

For inclusion in a critical habitat designation, the habitat within the geographical area occupied by the species at the time of listing must first have features that are essential to the conservation of the species. Critical habitat designations identify, to the extent known using the best scientific data available, habitat areas that provide essential life cycle needs of the species (i.e., areas on which are found the

primary constituent elements, as defined at 50 CFR 424.12(b)).

Habitat within the geographical area occupied by the species at the time of listing may be included in critical habitat only if the habitat has essential features that may require special management or protection. Thus, we do not include areas where existing management is sufficient to conserve the PCEs and the species. (As discussed below, such areas may also be excluded from critical habitat under to section 4(b)(2) of the Act.)

We can designate unoccupied areas as critical habitat. However, when the best available scientific data do not demonstrate that the conservation needs of the species require additional areas, we will not designate critical habitat in areas outside the geographical area occupied by the species at the time of listing.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions represent the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat. When determining which areas may be designated as critical habitat, a primary source of information is generally the listing package for the species. Additional information sources include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, or other unpublished materials and expert opinion or personal knowledge. All information is used in accordance with the provisions of the Information Quality Act and the associated Information Quality Guidelines issued by the Service.

Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that we may eventually determine are necessary for the recovery of the species. For these

reasons, a critical habitat designation does not signal that habitat outside the designation is unimportant or may not be required for recovery.

Areas that support populations of Sierra Nevada bighorn sheep, but are outside the critical habitat designation, will continue to be subject to conservation actions we implement under section 7(a)(1) of the Act. They are also subject to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available information at the time of the agency action. Federally funded or permitted 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 (HCPs), or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

Methods

As required by section 4(b) of the Act, we used the best scientific data available in determining areas occupied at the time of listing that contain the features essential to the conservation of Sierra Nevada bighorn sheep, and areas unoccupied at the time of listing that are essential to the conservation of the subspecies. We have also reviewed available information pertaining to the habitat requirements of this subspecies. These data include: information from the final listing rule (65 FR 20, January 3, 2000); information published in peer-reviewed literature, provided in academic theses and agency reports, and published in a Resource Selection Probability Functions model; location data and survey information provided in agency status and monitoring reports and on Geographic Information System (GIS) maps; information provided in the subspecies' draft recovery plan (Service 2003); material submitted during section 7 consultations; discussions with members of California Department of Fish and Game's (CDFG's) Sierra Nevada Bighorn Sheep Recovery Program and the Sierra Nevada Bighorn Sheep Recovery Team; and regional GIS coverages.

Primary Constituent Elements

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas to propose as critical habitat within geographical areas occupied by the

species at the time of listing, we consider the primary constituent elements to be those physical and biological features that are essential to the conservation of the species and which may require special management considerations and 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, and rearing (or development) of offspring; and

(5) Habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

We derive the specific primary constituent elements required for Sierra Nevada bighorn sheep from its biological needs.

Space for Individual and Population Growth and for Normal Behavior

In general, Sierra Nevada bighorn sheep inhabit open areas where the land is rocky, sparsely vegetated, and characterized by steep slopes and canyons (Wehausen 1980, p. 81; Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997, p. 5). In the Sierra Nevada, these bighorn sheep occur within a wide range of elevations, from alpine peaks in excess of 14,100 ft (4,300 m) to the base of the eastern escarpment as low as 4,790 ft (1,460 m) (Wehausen 1980, pp. 3 and 82). Recent modeling efforts have clarified and supported our knowledge that Sierra Nevada bighorn sheep habitat occurs as low as 4,000 ft (1,219 m) in the southern portion of its range (Johnson *et al.* 2005). Within this elevational range, a variety of vegetation communities exists, including: (1) Great Basin sagebrush-bitterbrush-bunchgrass scrub; (2) pinyon-juniper woodland and mountain mahogany scrub; (3) mid-elevation and subalpine forests, woodlands, and meadows; and (4) alpine meadows and other alpine habitats varying from cliffs to plateaus (Service 2003, p. 3). Sierra Nevada bighorn sheep prefer Great Basin scrub and alpine communities due to their visual openness. Because of the aridity of the eastern slope of the Sierra Nevada, many of the mid-elevation vegetation communities have some locations near precipitous rocks with sparse plant cover that allow use by bighorn sheep (Wehausen 1980, pp. 18–25, 80–100). The extreme visual openness and the steep, rocky nature of alpine environments in the Sierra

Nevada provide large expanses of habitat broken by canyons containing forests and willow stands. These areas of forests and willow stands are unlikely to be used by bighorn sheep. In contrast, low elevation winter habitat has been limited to small areas where topographic and visual features are suitable (Riegelhuth 1965, pp. 34–38; McCullough and Schneegas 1966, pp. 71–72, 74–75; Wehausen 1979, pp. 36–53; 1980, pp. 81–88). Large expanses lacking precipitous escape terrain can represent substantial barriers to movement (Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997, p. 5).

Male and female bighorn sheep commonly live in separate groups during much of the year, and often occupy different habitats (Geist and Petocz 1977, pp. 1802–1803; Bleich *et al.* 1997, pp. 7–14, 22–34, 36–42; Wehausen 1980, p. 109). In the Sierra Nevada, both sexes may share common winter ranges, but they become more segregated as spring nears (Wehausen 1980, pp. 112–113). During winter, bighorn sheep occupy high, windswept ridges if forage is available or move to lower elevation sagebrush-steppe habitat (as low as 4,790 ft (1,460 m)) to escape deep winter snows and find nutritious forage. In winter, they show a preference for south-facing slopes where snow melts more readily (Jones 1950, pp. 44–45; McCullough and Schneegas 1966, p. 71; Wehausen 1980, pp. 86–87). During summer, the two sexes utilize different habitats, with females restricted largely to alpine environments along the crest and males often at somewhat lower elevations in subalpine habitats (Wehausen 1980, pp. 112–113). Males again join females during the breeding season in late fall. Both males and females will inhabit open slopes where the area is rough, rocky, sparsely vegetated, and characterized by steep slopes and canyons (Wehausen 1980, p. 81; Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997, p. 5).

An indication of winter and summer range size for male and female Sierra Nevada bighorn sheep was provided by Wehausen (1980) and Chow (1992). Wehausen (1980, p. 84) determined winter and summer range sizes for the Baxter and Williamson herds. He estimated that total winter range was 2,632 ac (10.65 square kilometers (km²)) and 3,291 ac (13.32 km²), respectively. Summer range for ewes, lambs, and yearlings was estimated at 13,005 ac (52.63 km²) and 3,808 ac (15.41 km²), respectively. Fall range was estimated at 11,073 ac (44.81 km²) and 3,242 ac (13.12 km²), respectively. Chow (1992,

p. 37) estimated home range size for the Lee Vining herd (winter/spring and summer/fall for rams and ewes) using the minimum convex polygon method (completely enclose all data points by connecting the outer locations in such a way as to create a convex polygon) during 1986 to 1989. During this period, ewes covered an area of 1,038 to 4,473 ac (4.2 to 18.1 km²) during winter/spring, and rams covered an area of 2,941 to 6,919 ac (11.9 to 28.0 km²). During this same period, ewes covered 2,347 ac to 5,535 (9.5 to 22.4 km²) during summer/fall while rams covered 3,623 to 8,747 ac (14.7 to 35.4 km²). The mean minimum convex polygon home range was 7,759 ac (31.4 km²) for ewes and 20,979 ac (84.9 km²) for rams from Mount Warren/Mount Gibbs, Wheeler, Sawmill, and Baxter herds (Sierra Nevada Bighorn Sheep Recovery Program 2004, pp. 9, 17).

Bighorn sheep have developed philopatric behaviors (reluctance to disperse from their home range) such that they are slow to colonize unoccupied habitat (Geist 1971, pp. 98–99; Cowan and Geist 1971, p. 81). This is likely an adaptation to the naturally fragmented habitats that bighorn sheep occupy. Both male and female Sierra Nevada bighorn sheep demonstrate seasonal philopatry (Sierra Nevada Bighorn Sheep Recovery Program 2004, p. 7). While both males and females show a tendency to use the same ranges year after year, males show exceptions and demonstrate long-distance movements (Sierra Nevada Bighorn Sheep Recovery Program 2004, p. 7). Annual home range diameter provides an indication of the extreme distances the bighorn sheep can travel. Maximum diameters for home ranges for female Sierra Nevada bighorn sheep from the Mount Warren/Mount Gibbs, Wheeler, and Baxter herds ranged from 3.95 to 10.41 mi (6.35 to 16.75 km); males from the Mount Warren/Mount Gibbs, Wheeler, and Sawmill herds ranged from 5.5 to 36.9 mi (8.9 to 59.4 km) (Sierra Nevada Bighorn Sheep Recovery Program 2004, pp. 9, 17).

Bighorn sheep exhibit a variety of behavioral adaptations to avoid predation. Bighorn sheep are primarily diurnal (Jones 1950, pp. 54–57; Krausman *et al.* 1985, pp. 24–26). Coupled with their strong reliance on keen eyesight to detect predators, diurnal behavior minimizes predation risks. Due to their keen eyesight and agility on rocky slopes, bighorn sheep in general select open habitats that allow predator detection at distances great enough to allow time to reach steep, rocky terrain (escape habitat) (Wehausen 1980, p. 81). This

precipitous, rocky terrain is generally near foraging and resting areas. Bedding areas are needed for resting or sleeping purposes. During the day, bedding areas are generally wherever the individual is feeding. Bedding areas are made in the open but not necessarily in a place with a view of the surrounding area; during the night, bedding areas are generally among or near rugged, chuted cliffs (Jones 1950, p. 49). Bighorn sheep may venture a short distance away from rocky escape terrain to feed; the distance they venture from safer habitat varies and is apparently influenced by visual openness, wind, gender, season, and abundance of predators (Service 2003, p. 6).

Sites for Breeding, Reproduction, and Rearing of Offspring

In the Sierra Nevada, ewes and rams come together in late fall or early winter (November and December) (Jones 1950, pp. 63–64; Cowan and Geist 1971, p. 64; Wishart 1978, p. 165) to breed, usually at high elevations. Bighorn sheep generally give birth to single young (Wishart 1978, p. 165). Most bighorn sheep births in the Sierra Nevada occur in May and June (Wehausen 1980, p. 94; 1996, p. 475). Lambing habitat is in areas of precipitous rocks away from trees (Wehausen 1980, p. 95), providing safe areas from predators. Ewes with newborn lambs are solitary for a short period of time before joining nursery groups (65 FR 21; January 3, 2000).

Mortality Factors

Bighorn sheep die from a variety of causes including predation, disease, and accidents. Various predators, including wolves (*Canis lupus*), mountain lions (*Felis concolor*), coyotes (*Canis latrans*), bobcats (*Lynx rufus*), and golden eagles (*Aquila chrysaetos*) kill wild sheep in North America (Cowan and Geist 1971, p. 75; Bleich 1999, p. 283). Jones (1950, pp. 67–68) listed golden eagles, mountain lions, coyotes, wolverines (*Gulo luscus*), bobcats, and ravens (*Corvus corax*) as likely predators of Sierra Nevada bighorn sheep, but thought none of these predators caused anything but small losses on the population under normal circumstances. He thought predation overall was thought to be light except during abnormally unfavorable winters. In recent years in the Sierra Nevada, mountain lions have been the primary predator of bighorn sheep, accounting for 96 percent of losses attributed to predation (Service 2003, p. 10). Of 147 bighorn sheep deaths recorded in the Sierra Nevada during 1975 to 2000, a minimum of 54.5 percent could be

attributed to predation (Service 2003, p. 10).

Numerous diseases of bighorn sheep have been documented (Bunch *et al.* 1999, pp. 209–237). Bighorn sheep show a high susceptibility to pneumonia, usually caused by bacteria of the genus *Pasteurella* (some species now called *Mannheimia*) (Post 1971, pp. 98–101). Pneumonia caused by *Pasteurella* alone, or with other pathogens, is an important disease threat for bighorn sheep (Bunch *et al.* 1999, p. 210). Lungworms of the genus *Protostrongylus* can be important contributors to pneumonia and mortality in bighorn sheep in the Rocky Mountains (Forrester 1971, p. 158; Woodard *et al.* 1974, pp. 773–774). Bighorn in the Sierra Nevada carry *Protostrongylus* lungworms, but parasite loads have been too low to be considered a management concern (Wehausen 1980, p. 191).

Although die-offs of bighorn sheep due to disease have occurred unrelated to domestic sheep (Miller *et al.* 1991, pp. 534–540), a substantial amount of circumstantial evidence is available that indicates that contact with domestic sheep is associated with respiratory disease outbreaks resulting in significant morbidity and mortality in wild bighorn sheep (Martin *et al.* 1996, pp. 72, 74). The history of bighorn sheep in the United States provides numerous examples of major die-offs following believed contact with domestic sheep (Foreyt and Jessup 1982, pp. 163–164, 166; Singer *et al.* 2001, p. 1352; Coggins 2002, pp. 166–170), and these pneumonia epizootics can extirpate entire populations (Martin *et al.* 1996, pp. 72, 75). Diseases transferred through contact with domestic sheep are suspected to have played a major role in the disappearance of certain bighorn sheep herds in the Sierra Nevada beginning about 1870 (Wehausen 1988b, p. 100).

Many early die-offs of bighorn sheep, including some in the Sierra Nevada, were attributed to scabies contracted from domestic sheep (Jones 1950, p. 69; Buechner 1960, p. 111). In 1987, Clark *et al.* (1988, p. 13) found scabies in three desert bighorn sheep in California east of the Sierra Nevada. In a large sampling of 50 populations of bighorn sheep in California between 1980 and 1990, 25 populations were designated as scabies-positive because at least 1 seropositive animal occurred at the low or high cutoff values, though no clinical evidence of scabies was noted (Mazat *et al.* 1992, pp. 543–545).

Other infectious diseases may be of concern for bighorn sheep in selected instances. Domestic goats are occasionally used as pack animals in the

back country or for brush control. This use could cause concern if it occurs in or near bighorn sheep habitat. For example, a recent outbreak of infectious keratoconjunctivitis (inflammation of the eye) linked to domestic goats resulted in blindness and several deaths (exacerbated by the blindness) in bighorn sheep in Arizona, demonstrating the risk of disease outbreak in bighorn sheep from interactions with domestic goats (Heffelfinger 2004, cited in Sierra Nevada Bighorn Sheep Recovery Program 2004, p. 2).

Sierra Nevada bighorn sheep remaining at high elevations year-round likely contributed to population losses over winter (Wehausen 1996, pp. 474–477). Those losses included reduced lamb survival over winter and losses of all sex and age classes in snow avalanches (Service 2003, pp. 10–11). A survey of the Wheeler Ridge herd during the heavy winter of 1995 found 12 sheep had died in a single snow avalanche (Torres *et al.* 1996, p. 28).

Metapopulation Structure

Within mountain ranges like the Sierra Nevada, bighorn sheep habitat is patchy and the population structure is one of natural fragmentation (Bleich *et al.* 1990, p. 384). This fragmentation has led to the application of a broad landscape approach to their population ecology which groups geographically distinct herds into metapopulations, which are networks of interacting herds (Schwartz *et al.* 1986, pp. 182–183; Bleich *et al.* 1990, p. 386). This approach considers long-term viability not of individual herds but rather of entire metapopulations; thus both genetic and demographic factors are considered. Decreasing population sizes, over time, can lead to decreasing levels of heterozygosity (presence of different forms of a gene at a particular location on a chromosome) that may have negative demographic effects through inbreeding depression (Lande 1988, p. 1456) and loss of adaptability. A small amount of genetic exchange among herds by movements of males can counteract inbreeding and associated increases in homozygosity (presence of identical forms of a gene at a particular location on a chromosome) that might otherwise develop within small, isolated populations (Schwartz *et al.* 1986, p. 185). Males have a much greater tendency than females to explore new ranges, which males may do in search of other females with which they will breed. If geographic distances between female groups within metapopulations are not great, gene migration by males occurs readily. In

the absence of such a metapopulation structure, populations will be isolated. Because the distribution of bighorn sheep in the Sierra Nevada, is naturally fragmented, maintenance of migration corridors is important to allow for genetic exchange between herd units. In the Sierra Nevada this exchange may be more difficult because the metapopulations occur mostly in a linear geographic distribution pattern; thus fewer populations may have provided sources of colonists (Service 2003, p. 40).

Substructuring also can occur within what are often thought of as single herds of bighorn sheep (Festa-Bianchet 1986, pp. 327–330; Andrew *et al.* 1997, pp. 74–75; Rubin *et al.* 1998, pp. 543–548). Such substructuring is defined by separate home range patterns. Although demonstrated more with females, it can occur in both sexes. For example, what was once considered the Mount Baxter herd is now recognized as two herds, the Mount Baxter and Sawmill Canyon herds.

Another important long-term process in metapopulation dynamics is the balance between rates of natural extinction and colonization among populations. Colonization rates must exceed extinction rates for a metapopulation to persist (Hanski and Gilpin 1991, pp. 8–9). This balance has not occurred for Sierra Nevada bighorn sheep since about 1850 due to the high rate of local extinctions resulting in an increasingly fragmented distribution. In addition to fragmentation from past extinctions, remaining herds are small, isolated groups of bighorn sheep. Because of their small population size, these small groups are more vulnerable

to extirpation due to random naturally occurring events, disease, or predation (Shaffer 1987, pp. 71–73; Meffe and Carroll 1994, pp. 190–197; Service 2003, p. 8).

Food and Nutritional Requirements

Bighorn sheep are ungulates that consume a wide variety of plant species. Due to a large rumen and reticulum relative to body size, they are able to have flexibility in the plants they consume which includes graminoids (grasses, sedges, and rushes) in different phenological stages (Hanley 1982, p. 148). Bighorn sheep consume a wide variety of plant species. While they prefer grasses, sedges, and forbs, different browse species become important food during the fall and winter (Wishart 1978, p. 167).

Bighorn sheep exhibit seasonal changes in habitat use due to seasonal changes in resource availability, habitat and resource requirements. Sierra Nevada bighorn sheep rarely utilize surface water; instead, these bighorn sheep generally obtain moisture from their forage or the occasional consumption of snow. Altitudinal migration by Sierra Nevada bighorn sheep allows them to maximize nutrient intake during the year (Wehausen and Hansen 1988, pp. 256–257, 265–267; Wehausen 1996, pp. 476–477), as the relationship between elevation and temperature (Major 1977, pp. 44–45) influences plant growth (Wehausen 1980, p. 86–91, 133–135). In general, temperatures decrease with increasing altitude (Major 1977, p. 44). In the Sierra Nevada, every 56 ft (17 m) of elevation gain causes 1 day delay in the onset of plant growth (Wehausen and

Hansen 1988, p. 257). Bighorn sheep are able to take advantage of early spring growth (usually cold-season grasses) and then later change their diet to include warm-season plants that may have higher nutrient concentrations than grasses (Wehausen and Hansen 1988, p. 257). Sierra Nevada bighorn sheep use low-elevation ranges extensively in winter and early spring, alpine ranges in summer and fall, and some intermediate ranges during transition periods (Wehausen 1980, pp. 80–100).

In the following section plant nomenclature has been updated to conform to treatments in Hickman (1993). Common names generally conform to those given in Hickman (1993) and/or Abrams *et al.* (1923–1960). Cited scientific names are retained in brackets for ease of reference. The following plant species were found to be important winter/spring forage for Sierra Nevada bighorn sheep: *Achnatherum speciosum* [*Stipa speciosa*] (desert needlegrass), *Eriogonum fasciculatum* (California buckwheat), *Artemisia tridentata* (sagebrush), *Ephedra viridis* (green ephedra), *Keckiella breviflora* (gaping keckiella), *Purshia glandulosa* (Mojave antelope bush), *P. tridentata* (northern antelope bush), and *Ceanothus cordulatus* (mountain whitethorn) (Wehausen 1980, p. 87). McCullough and Schneegas (1966, p. 72) and Riegelhuth (1965, p. 38) provide similar lists of plant species observed consumed by Sierra Nevada bighorn sheep during winter and/or summer (TABLE 1). Wehausen (1980, pp. 124–126) provides a list of plants consumed by both sexes in summer (TABLE 1).

TABLE 1.—PLANT SPECIES OBSERVED CONSUMED BY SIERRA NEVADA BIGHORN SHEEP DURING SUMMER AND FALL MONTHS (MCCULLOUGH AND SCHNEEGAS (1966, P. 72); RIEGELHUTH (1965, P. 38); WEHAUSEN 1980, P. 124–126).

Sex	Season	Scientific name	Common name
Ewes and Lambs ...	Summer and fall	<i>Polemonium eximium</i>	sky pilot.
		<i>Hulsea algida</i>	alpine hulsea.
		<i>Carex helleri</i>	Heller's sedge.
		<i>C. rossii</i>	Ross' sedge.
		<i>C. leporinella</i>	Sierra hare sedge.
		<i>Elymus elymoides</i> ssp. <i>elymoides</i> [<i>Sitanion hystrix</i>]	bottlebrush squirreltail.
		<i>Phacelia hastata</i> [<i>frigida</i>]	timberline phacelia.
		<i>Silene sargentii</i>	Sargent's campion.
		<i>Aquilegia pubescens</i>	Coville's columbine.
		<i>Ivesia pygmaea</i>	dwarf ivesia.
		<i>Juncus parryi</i>	Parry's rush.
		<i>Achnatherum</i> [<i>Stipa</i>] <i>pinetorum</i>	pine needlegrass.
		<i>Lupinus formosus</i>	summer lupine.
Rams	Summer and fall	<i>Juncus parryi</i>	Parry's rush.
		<i>Carex filifolia</i> var. <i>erostrata</i> [<i>exserta</i>]	(no common name).
		<i>C. rossi</i>	(no common name).
		<i>C. aurea</i>	golden-fruited sedge.
		<i>Luzula comosa</i>	hairy wood rush.
		<i>Poa cusickii</i> ssp. <i>epilis</i> [<i>epilis</i>]	mountain bluegrass.
		<i>Elymus elymoides</i> ssp. <i>elymoides</i> [<i>Sitanion hystrix</i>]	(no common name).

TABLE 1.—PLANT SPECIES OBSERVED CONSUMED BY SIERRA NEVADA BIGHORN SHEEP DURING SUMMER AND FALL MONTHS (McCULLOUGH AND SCHNEEGAS (1966, P. 72); RIEGELHUTH (1965, P. 38); WEHAUSEN 1980, P. 124–126).—Continued

Sex	Season	Scientific name	Common name
		<i>Danthonia intermedia</i>	mountain oatgrass.
		<i>Achnatherum lemmonii</i> [<i>Stipa columbiana</i>]	Lemmon's stipa.
		<i>Eriogonum latens</i>	onion-flowered eriogonum.
		<i>Trifolium monanthum</i>	carpet clover.
Both sexes	Summer	<i>Holodiscus microphyllus</i>	small-leaved cream bush.
		<i>Jamesia americana</i>	cliff bush.
		<i>Ribes montigenum</i>	alpine prickly currant.
		<i>Potentilla fruticosa</i>	shrubby cinquefoil.

In addition to forage needs, salt/mineral licks are specific sites where bighorn sheep have access to important minerals to meet nutritional needs. These licks contain minerals such as sodium, calcium, iron, and phosphorus. Sites are generally found in granite rock outcroppings in the Sierra Nevada. Some known areas occur in the vicinity of Gilcrest Peak and Tioga Road (Chow 1992, p. 52), Baxter Pass (Jones 1950, p. 63; Hicks and Elder 1979, p. 911; Wehausen 1980, p. 151), and Mayfield Canyon (Stephenson 2007).

Historical and Geographic Distribution of the Species

Historically, the range of the Sierra Nevada bighorn sheep included the eastern slope of the Sierra Nevada, and for at least one subpopulation, a portion of the western slope, from Sonora Pass in Mono County to Walker Pass in Kern County, a total distance of approximately 346 km (215 miles (mi)) (Jones 1950, pp. 33–35; Wehausen 1979, p. 1). The extant range of the Sierra Nevada bighorn sheep begins in the Lee Vining area in Mono County and extends south to the Mount Langley area in Inyo County. This is a linear distance of approximately 110 mi (177 km).

All currently occupied units that are proposed for designation were occupied at the time of listing and contain the physical and biological features essential to the conservation of the subspecies and may require special management considerations or protection. The areas proposed for designation that are currently unoccupied were also not occupied at the time of listing, however these areas are representative of the historical and geographical distribution of the Sierra Nevada bighorn sheep and were all historically occupied (Ober 1914, p. 125; Ober 1931, p. 32; Jones 1950, pp. 35, 38–40; Buechner 1960, p. 69; Barrett 1965, p. 43; Riegelhuth 1965, p. 35; Dunaway 1971, p. 19; Wehausen et al. 1987, p. 66; Wehausen 1988a, p.100–

101; Wehausen 1988b, p. 100; Berger 1990, p. 94). Furthermore, we have determined that all proposed unoccupied habitat is essential for the conservation of the subspecies and will decrease the degree of fragmentation within the current geographic distribution of the subspecies. For further information on occupancy status see Table 3 and the Unit Description sections below.

Primary Constituent Elements for Sierra Nevada Bighorn Sheep

Under the Act and its implementing regulations, we are required to identify the known physical and biological features (primary constituent elements or PCEs) within the geographical area occupied, which may require special management considerations or protection. All areas proposed as critical habitat for Sierra Nevada bighorn sheep are within the subspecies' historical geographic range, and contain sufficient PCEs to support at least one life history function.

Based on the above needs and our current knowledge of the life history, biology, and ecology of the subspecies, we have determined that the Sierra Nevada bighorn sheep's PCEs are:

(1) Non-forested habitats or forest openings within the Sierra Nevada from 4,000 ft (1,219 m) to 14,500 ft (4,420 m) in elevation with steep (greater than or equal to 60 percent slope), rocky slopes that provide for foraging, mating, lambing, predator avoidance, and bedding and allow for seasonal elevational movements between these areas.

(2) Presence of a variety of forage plants as indicated by the presence of grasses (e.g., *Achnanthera* spp.; *Elymus* spp.) and browse (e.g., *Ribes* spp.; *Artemisia* spp., *Purshia* spp.) in winter, and grasses, browse, sedges (e.g., *Carex* spp.) and forbs (e.g., *Eriogonum* spp.) in summer.

(3) Presence of granite rock outcroppings containing minerals such

as sodium, calcium, iron, and phosphorus that could be used as salt licks/mineral licks in order to meet nutritional needs.

We determined that these PCEs contained within the proposed critical habitat units discussed below provide for the physiological, behavioral, and ecological requirements of the Sierra Nevada bighorn sheep. The first PCE provides for the general biotic communities that are known to support Sierra Nevada bighorn sheep habitat in the Sierra Nevada of California. Sierra Nevada bighorn sheep are not known to occur outside of the communities/elevations described in this PCE. This PCE further provides the components necessary for foraging (summer and winter), breeding, lambing, predator avoidance, and bedding, and allows for seasonal elevational movements among these areas.

The second PCE describes the types of food necessary to meet the biological needs of the Sierra Nevada bighorn sheep related to seasonal range movements. Altitudinal migration by Sierra Nevada bighorn sheep allows them to maximize nutrient consumption during the year (Wehausen and Hansen 1988, pp. 256–257, 265–267; Wehausen 1996, pp. 476–477), as the relationship between elevation and temperature (Major 1977, pp. 44–45) influences plant growth (Wehausen 1980, pp. 86–91, 133–135), as discussed earlier. Wehausen (1980, p. 86) found winter diet quality was improved with warmer winter temperatures that aided plant growth; he found summer diet quality was improved, apparently, by the amount of snowfall the previous winter, which may influence soil moisture for alpine plants (Wehausen 1980, p. 133).

The third primary constituent element provides for additional nutritional needs. Mineral licks provide necessary nutrients, important in meeting dietary requirements.

We have designed this proposed designation for the conservation of PCEs

necessary to support the life history functions that were the basis for our proposal and the areas containing those PCEs. Because not all life history functions require all the PCEs, not all areas proposed as critical habitat will contain all the PCEs.

We propose units for designation based on sufficient PCEs being present to support one or more of the subspecies' life history functions. Some units contain all PCEs and support multiple life processes, while some units contain only a portion of the PCEs necessary to support the subspecies' particular use of that habitat. This applies to both occupied and unoccupied units proposed in this designation.

Criteria Used To Identify Critical Habitat

We propose to designate critical habitat in areas that we have determined were occupied at the time of listing and that contain sufficient PCEs to support life history functions essential for the conservation of the subspecies and may require special management considerations or protection. Some lands contain only a portion of the PCEs necessary to support the particular use of that habitat during that portion of the life process. We propose to designate critical habitat on some specific unoccupied areas outside of the geographical area occupied by the subspecies at the time of listing, but these areas were historically occupied, and we have determined that they are essential for the conservation of the subspecies.

In our analysis, we reviewed existing data to determine the distribution of areas occupied by the subspecies at the time of listing. We also reviewed available information related to the habitat requirements of the subspecies. We used information from literature cited in the final listing rule (65 FR 20; January 3, 2000), the recovery plan, site records, reports prepared by CDFG, and other published scientific literature.

We used the following criteria to select areas occupied by the Sierra Nevada bighorn sheep at the time of listing for inclusion in critical habitat:

(a) Those areas occupied by the Sierra Nevada bighorn sheep at the time of listing (1999–2000) as indicated in the final listing rule (65 FR 20; January 3, 2000). In the final rule, we identified five subpopulations of Sierra Nevada bighorn sheep that existed: (1) Lee Vining Canyon (=Mount Warren, Mt. Gibbs Herd Units), (2) Wheeler Crest (=Wheeler Ridge Herd Unit), (3) Mount Baxter (=Sawmill Canyon, Mount Baxter Herd Units), (4) Mount Williamson

(=Mount Williamson Herd Unit), and (5) Mount Langley (=Mount Langley Herd Unit) in Mono and Inyo counties, California (Wehausen 1999, pp. 1–7; 2000, pp. 1–6);

(b) areas that are representative of the distribution of the Sierra Nevada bighorn sheep throughout the geographical range occupied at the time of listing with the goal of maintaining the subspecies' range of habitat and genetic variability; and

(c) areas that allow for the continued existence of viable subpopulations under varying environmental conditions and that can serve as locations for source populations. The locations of all five subpopulations identified in the original listing rule continue to remain occupied today.

Current population estimates of the Sierra Nevada bighorn sheep in 2006 indicate 350 to 400 individuals occur throughout its range (Wehausen and Stephenson 2006, p. 7); this is an increase from the 125 individuals estimated at the time of listing (65 FR 20; January 3, 2000). Current individual herd numbers in the different subpopulations range from 8 to 113 individuals (Wehausen and Stephenson 2006, p. 7). Current occupancy of these herd units is supported by agency reports (Wehausen and Stephenson 2004, pp. 2–10; 2005, pp. 2–6; 2006, pp. 2–6), status reports (Wehausen 1999, pp. 1–7; 2000, pp. 1–6), and monthly CDFG monitoring reports based on GPS/telemetry/monitoring data collected during 2001 through 2006. We have determined that the areas occupied at the time of listing continue to be occupied, contain features essential to the conservation of the subspecies (possess one or more PCEs such that the area supports one or more of the Sierra Nevada bighorn sheep's life processes), and provide sufficient habitat to protect these populations.

We further propose to designate critical habitat on lands that were historically occupied by the Sierra Nevada bighorn sheep, but were not occupied at the time of listing and are not currently occupied. These areas were all historically occupied within the past 90 years (Jones 1950, pp. 33–35) and are essential to the conservation of the subspecies. Based on the best available information, we have determined that without protection and management of these unoccupied areas, conservation of the subspecies will not be possible.

We applied each of the following criteria to select areas historically occupied, but not known to be occupied at the time of listing by the Sierra

Nevada bighorn sheep, for inclusion in critical habitat:

(1) Areas where habitat contains sufficient PCEs (e.g. characteristics such as non-forested, steep, rocky slopes and foraging areas) to support life history functions;

(2) Areas where habitat has been known to have been occupied by the subspecies. In some areas this was as long ago as 90 years (Jones 1950, pp. 33–35). In all of the areas the habitat has not changed appreciably in size or quality during that time;

(3) Areas where appropriate habitat for Sierra Nevada bighorn sheep has been predicted by CDFG based on Resource Selection Probability Functions modeling (Johnson *et al.* 2005) (i.e., contains habitat with the PCEs and additional, more specific characteristics that allow for a range of the subspecies' biological needs, such as sites for feeding);

(4) Areas where there is potential for reoccupation by the subspecies, either through natural means of dispersal from currently occupied areas or by future re-introduction efforts; and

(5) Areas that are geographically separated from currently occupied units by approximately 0.5 to 8 mi (0.8 to 12.9 km) to provide redundancy of habitat in the event of a natural catastrophe removing habitat (PCEs) from currently occupied units.

The designation of these unoccupied areas would decrease the degree of fragmentation within the current geographic distribution of the Sierra Nevada bighorn sheep. We believe that the designation of these additional areas is essential for the conservation of the subspecies because:

(1) Population increases, either through natural means or reintroductions into the additional units, are expected to increase the viability of the herds within occupied areas as well as the existence of the Sierra Nevada bighorn sheep as a whole (i.e., increase the likelihood of persistence at the local population level and of this subspecies rangewide);

(2) The Sierra Nevada bighorn sheep is recognized as a unique subspecies (Wehausen and Ramey 2000, p. 156; Wehausen *et al.* 2005, p. 217), and the additional units will serve to decrease the degree of fragmentation of the current geographic distribution of the sheep (i.e., increase connectivity between areas known to be currently occupied). Fragmented distribution across the landscape reduces the connectivity between subpopulations. If small populations are isolated and remain small, there is an increased risk of genetic drift and risk to persistence

due to naturally occurring events (Gilpin and Soule 1986, pp. 25, 33). Maintenance of genetic variation is important in reducing inbreeding depression and the ability to respond to environmental changes over time especially in small populations (Schwartz *et al.* 1986, pp. 180–186; Lande 1988, pp. 1456–1457). Establishing additional units/subpopulations in unoccupied areas would fill in range gaps between the other occupied units/subpopulations. All of the unoccupied units lie within 8 mi (12.9 km) of an occupied area. This would reduce migration distances and increase the opportunity for genetic exchange between the subpopulations. The addition of these unoccupied units would ensure the full geographic distribution of the Sierra Nevada bighorn sheep is represented; and

(3) The current overall population size of the Sierra Nevada bighorn sheep is small, and it must increase to insure the long-term survival of this subspecies in the Sierra Nevada, as small populations are more vulnerable to extinction (Meffe and Carroll 1994, pp. 190–197; Shaffer 1987, pp. 71–73). While the occupied units provide habitat for current populations, additional units would provide habitat for population growth either through natural means or through re-introductions. Population increase in the additional units would assist in reducing the risk of extinction of the subspecies through stochastic events, such as wildfire, disease (Miller *et al.* 1991, pp. 534–540; Martin *et al.* 1996, pp. 72, 74; Bunch *et al.* 1999, pp. 209–237), or avalanches (Torres *et al.* 1996, p. 28), as the current isolated populations are few in number and small in size and at risk from such stochastic events. Establishing additional subpopulations, increasing a subpopulation's size, and increasing the overall distribution of subpopulations across the landscape are fundamental in reducing the significance of losing any single subpopulation.

We have determined that the proposed but unoccupied Twin Lakes, Green Creek, and Coyote Ridge Herd Unit areas, as identified in the draft recovery plan (Service 2003), are not essential for the conservation of the Sierra Nevada bighorn sheep. During the recovery team's continuing efforts to finalize the draft recovery plan, an additional herd unit, Bubbs Creek, is to be included in the recovery plan due to bighorn sheep occupying this area (Wehausen and Stephenson 2004, p. 5; Benz 2007, p. 1). These four herd units are considered not essential for the following reasons:

(1) We believe that the 12 units we propose for critical habitat would provide the necessary habitat and area to insure the viability and long-term survival of the Sierra Nevada bighorn sheep at the local and subspecies levels as well as provide for sufficient resiliency, representation and redundancy;

(2) There is uncertainty whether viable Sierra Nevada bighorn sheep herds can become established in the proposed Twin Lakes, Green Creek, and Coyote Ridge Herd Unit areas due to the lack of historic evidence regarding the number of animals that may have occurred in these areas and/or our limited understanding of the availability and connectivity between foraging habitats in these areas. Thus, there is a question as to whether there is a potential for reoccupation by the subspecies, either through natural means of dispersal or by future re-introduction efforts. As a result, the three proposed herd unit areas do not meet our criteria number 4 for identification of critical habitat outlined above. Therefore, the proposed Twin Lakes, Green Creek, and Coyote Ridge Herd Unit areas are not considered essential for recovery; and

(3) Bighorn sheep were discovered in the Bubbs Creek Herd Unit in 2001 and were likely a result of a recent colonization. That herd unit is west of the crest of the Sierra Nevada where snowfall is much greater than the east side of the range. Because there are no historical records of bighorn sheep winter ranges in the Bubbs Creek area, there is uncertainty as to the long-term viability of this herd unit. Consequently the Bubbs Creek Herd Unit is not considered essential for recovery.

Further, the concern for disease transmission from domestic sheep to Sierra Nevada bighorn sheep is reduced by not including the unoccupied herd units as essential to the recovery of the subspecies. Twin Lakes and Green Creek overlap with portions of a few currently active domestic sheep allotment boundaries. Bubbs Creek and Coyote Ridge Herd Units do not occur near any domestic sheep allotments.

We delineated polygon boundaries for each unit proposed for critical habitat designation within the Sierra Nevada bighorn sheep's historic range and around areas occupied at the time of listing, or known to have been historically occupied and considered essential for the conservation of the subspecies. We based our consideration of boundary delineation on the knowledge that bighorn sheep are naturally philopatric and fit a metapopulation model. Separate female

groups tend to be geographically segregated, and these groups can be defined by separate home range patterns. The existing herds provided information related to home range and habitat use patterns. Low elevation winter range habitat is an important, and an apparently limiting, factor in the Sierra Nevada that occurs in disjunct patches. We defined unit boundaries around those patches and geographically connected habitat that provides visually open habitat on steeper slopes (Wehausen 2006, p.1). We also considered, factors such as knowledge of the range of elevations used by Sierra Nevada bighorn sheep, topographic features known to be needed by the subspecies, sighting records, published literature, and the expertise of bighorn sheep biologists of the local conditions (high elevation, snow-free winter habitat; lower elevation, south or east-facing habitat; visual openness; and high elevation, summer habitat) during boundary delineation. In addition, a Resource Selection Probability Functions model for winter and summer habitat was developed that can quantitatively evaluate habitat conditions (Johnson *et al.* 2005). This modeling effort was used to support and refine unit boundaries (Wehausen 2006, p. 2) which contain the PCEs and additional, more specific characteristics. The model included variables such as: elevation, slope, aspect, hillshade, terrain ruggedness, distance to escape terrain, and vegetation to determine visibility (Johnson *et al.* 2005, pp. 8–9). Pixels (smallest element of an image that can be individually processed in a video display system) in the study area that received a relative winter and summer probability of use value in the 90–100 percent quartile were considered winter and summer ranges. Each unit boundary surrounds the areas we consider to be winter and summer range, as well as areas necessary to provide connectivity between these ranges. These boundary lines translate onto the ground by roughly following elevation and geomorphic features. As one progresses from south to north along the Sierra Nevada, the low elevation of the units increases. The elevation of the boundary lines begins at a low of 4,000 ft (1,219 m) for Unit 12 (Olancha Peak) at the southern end of the Sierra Nevada. From this unit northward, the remaining units begin at a low elevation of 4,500 ft (1,372 m) or higher.

When determining proposed critical habitat boundaries for this proposed rule, we made every effort to avoid including developed areas such as lands

covered by buildings, paved areas, and other structures that lack PCEs for the Sierra Nevada bighorn sheep. The scale of the maps prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed areas. Any such structures and the land under them inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, Federal actions limited to these areas would not trigger section 7 consultation, unless they may affect the species or primary constituent elements in adjacent critical habitat.

We propose to designate critical habitat on lands that we have determined were occupied at the time of listing that contain the primary constituent elements that support life history functions essential for the conservation of the subspecies (7 units) that may require special management considerations or protection, and additional areas not occupied at the time of listing that we have determined to be essential to the conservation of the subspecies (5 units). The 12 units that we propose as critical habitat encompass about 417,577 ac (168,992 ha) within Tuolumne, Mono, Fresno, Inyo, and Tulare counties, California. The proposed units contain habitat that supports biological and population-level functions of the Sierra Nevada bighorn sheep. A brief discussion of each unit proposed as critical habitat is provided in the unit descriptions below.

Units both occupied and unoccupied at the time of listing are proposed for designation based on sufficient PCEs being present to support Sierra Nevada bighorn sheep life processes. Some units contain all PCEs and support multiple life processes. Some units contain only a portion of the PCEs necessary to support the Sierra Nevada bighorn sheep's particular use of that habitat.

Section 10(a)(1)(B) of the Act authorizes us to issue permits for the take of listed species incidental to otherwise lawful activities. An incidental take permit application must be supported by a habitat conservation plan (HCP) that identifies conservation measures that the permittee agrees to implement to minimize and mitigate the impacts of the taking on the species. We often exclude from designated critical habitat, under section 10(a)(1)(B) of the Act, non-Federal public lands and private lands that are covered by an existing operative HCP and executed implementation agreement (IA) because the benefits of exclusion outweigh the

benefits of inclusion as discussed in section 4(b)(2) of the Act. There are no existing operative HCPs that meet our issuance criteria within the areas proposed for designation as critical habitat.

Special Management Considerations or Protections

When designating critical habitat, we assess whether the areas that we determined to be occupied at the time of listing and that contain the features that are essential to the conservation of the subspecies and which may require special management considerations or protection. As described in more detail in the unit descriptions below, we find that the PCEs within the units occupied at the time of listing (Units 1, 2, 4, 6, 7, 8, and 10) may require special management considerations or protection due to threats to the Sierra Nevada bighorn sheep or its habitat. All of these units occur almost exclusively on Federal lands managed by the Forest Service, National Park Service, and the Bureau of Land Management. Management considerations and protection may include review of various activities proposed in Sierra Nevada bighorn sheep habitat requiring a permit from these agencies. These activities can include habitat enhancement projects to reverse fire suppression effects, development activities, livestock grazing, mining actions, and recreational activities. In addition, because all of the herds are relatively small, management actions to protect Sierra Nevada bighorn sheep habitat from catastrophic, naturally occurring events (e.g., wildfires, disease, avalanches) may be necessary.

Fire suppression can modify the structure of Sierra Nevada bighorn sheep habitat by allowing taller vegetation, such as trees, to become established, resulting in cover for predators. Mountain lions, a primary predator of Sierra Nevada bighorn sheep, use vegetative cover and terrain to conceal themselves prior to attacks. Fires may have burned more frequently in the past in bighorn sheep habitat. Old ground and aerial photographs show habitats in the eastern Sierra Nevada had little vegetation tall enough to obstruct the vision of bighorn sheep; pinyon pine woodlands have mostly developed since 1860 (Miller and Tausch 2001, pp. 15–16). Continued suppression of fires in Sierra Nevada bighorn sheep range is a threat, as habitat succession alters the abundance of suitable bighorn sheep habitat and increases bighorn sheep vulnerability to mountain lion predation (Torres *et al.* 1996, p. 29). Performing habitat

enhancements, such as prescribed burning, or enabling "let burn" policies, helps to provide open habitats. Opening up habitat will help to reduce predation by decreasing the effectiveness of ambushing from predators (such as mountain lions) from cover. Providing more open habitat will allow more opportunity for connectivity among herd units and likely promote greater gene flow to conserve genetic diversity. According to Johnson *et al.* (2005, p. 34), all of the herd units would benefit from forest reduction in winter range; those units that would benefit the most are Units 8 and 10. Thus, the PCEs in all of the units occupied at the time of listing (Units 1, 2, 4, 6, 7, 8, and 10) may require special management considerations or protection to reverse the impacts of fire suppression.

There is limited development within Sierra Nevada bighorn sheep habitat because most habitat occurs on Federal lands; however, there is some recreational development (e.g., resorts). There are several paved and unpaved roads that access Federal lands within Sierra Nevada bighorn sheep habitat. For example, State Highway 120 is located primarily between Units 1 and 2, but some sections lie within Unit 1. Bighorn sheep have been killed due to collisions with vehicles on this road (65 FR 28; January 3, 2000). State Routes 158 and 190 occur in or adjacent to portions of Unit 2 and Unit 10, respectively. The PCE's in Units 1, 2, 4, and 10 require special management considerations or protection to address the impacts from development activities, including road construction and maintenance within Sierra Nevada bighorn sheep habitat.

Management of domestic sheep and goat grazing practices that result in overgrazing or allow for contact between these domestic species and Sierra Nevada bighorn sheep is a threat. Although die-offs of bighorn sheep due to disease have occurred unrelated to domestic sheep (Miller *et al.* 1991, pp. 534–540), a major contributing factor responsible for the decline of Sierra Nevada bighorn sheep populations over the years is thought to be the introduction of diseases by domestic livestock (Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997, p. 5; 65 FR 25, January 3, 2000). Clifford *et al.* (2007, p. 18) indicate concern for the probability of a respiratory disease case occurring from disease transmission between domestic sheep and Sierra Nevada bighorn sheep, especially in the northern part of bighorn sheep range. Grazing allotments within the vicinity of Sierra Nevada bighorn sheep habitat should be reviewed and activities

modified as necessary to prevent competition and contact between the two species. These modifications could include such variables as the number of domestic sheep allowed on an allotment, where the domestic sheep may graze on an allotment, and the length and timing of the grazing period. These variables can assist in reducing resource competition as well as a means to reduce contact between the two species. The PCEs within Units 1, 2, and 4 may require special management considerations or protection to address the potential impacts of sheep and goat grazing within Sierra Nevada bighorn sheep habitat.

Patented mining claims occur within habitat used by the Sierra Nevada bighorn sheep, but the acreage is small. Mining activities and associated facilities threaten bighorn sheep by causing the loss of vegetation structure required for foraging activities; the destruction of habitats used for escape, bedding, lambing, or connectivity between ranges; or the possible disturbance of due to ongoing mining activities. Disturbance could modify bighorn sheep behavior or cause them to flee an area. Mining occurs within the habitat of Sierra Nevada bighorn sheep in Unit 4. These mines are underground, thus reducing some impacts of habitat loss. PCEs within this unit may require special management considerations or protection to address mining and associated facility development impacts within Sierra Nevada bighorn sheep habitat.

It remains unclear how significantly Sierra Nevada bighorn sheep may be affected by human disturbance (Jones 1950, pp. 71–72; Dunaway 1971, p. 19; Wehausen *et al.* 1977, p. 31; Hicks and

Elder 1979, p. 914; Wehausen 1980, pp. 200–201; MacArthur *et al.* 1982, p. 356; Papouchis *et al.* 2001, pp. 579–580). Additional investigations are needed to identify areas of conflict as situations arise where the increased presence of humans could be detrimental to the Sierra Nevada bighorn sheep or its habitat. These areas of use could be displacing Sierra Nevada bighorn sheep from important habitats.

Increases in human uses of bighorn sheep habitat, including recreational activities such as rock and ice climbing, mountaineering, ski touring, hiking, camping, and pack station establishment, may disturb Sierra Nevada bighorn sheep in key areas. This could result in abandonment of these areas or disruption of feeding and cause reduced nutrient intake. A cost in biological energetics could also occur due to flight. These losses could translate into reduced reproductive success. Impacts to the habitat could occur through trampling and reduced vegetation structure due to grazing by pack animals. The presence of dogs accompanying recreationists is also a concern in bighorn sheep habitat as dogs may cause strong alarm reactions by bighorn sheep (MacArthur *et al.* 1982, p. 356).

The PCEs within the units occupied at the time of listing (Units 1, 2, 4, 6, 7, 8, and 10) may require special management considerations or protection to protect Sierra Nevada bighorn sheep and its habitats from recreational activities. While recreation could be a threat factor throughout an occupied herd unit, it is more likely in some portions of units due to their inclusion of these higher use areas or their proximity to these areas. These

areas include the Virginia Lakes, Lundy Lake, Saddlebag Lake, and Lee Vining Canyon recreational areas associated with Unit 1; Lee Vining Canyon associated with Unit 2; the Rock Creek recreational area associated with Unit 4; Baxter Pass and Onion Valley recreational area associated with Unit 7; and the Whitney Portal and Trailhead and the Cottonwood Lakes recreational areas associated with Units 8 and 10.

Management actions to protect Sierra Nevada bighorn sheep habitat from catastrophic, naturally occurring events may be necessary. Events such as wildfire and avalanches could temporarily destroy large areas that provide summer or winter foraging habitat.

Proposed Critical Habitat Designation

We are proposing 12 units as critical habitat for the Sierra Nevada bighorn sheep. The critical habitat areas described below constitute our best current assessment of areas determined to be occupied at the time of listing, that meet the definition of critical habitat for the Sierra Nevada bighorn sheep, and those additional areas that were not occupied at the time of listing but were found to be essential to the conservation of the Sierra Nevada bighorn sheep. The 12 areas designated as critical habitat are: Mount Warren, Mount Gibbs, Convict Creek, Wheeler Ridge, Taboose Creek, Sawmill Canyon, Mount Baxter, Mount Williamson, Big Arroyo, Mount Langley, Laurel Creek, and Olancha Peak.

The approximate area encompassed within each proposed critical habitat unit is shown in Table 2.

TABLE 2.—PROPOSED CRITICAL HABITAT UNITS FOR SIERRA NEVADA BIGHORN SHEEP
[Area estimates reflect all land within critical habitat unit boundaries]

Critical habitat unit	Land ownership by type	Size of unit in acres (Hectares)
1. Mount Warren	Federal	35,279 (14,277)
	Private	568 (230)
	Local Government	165 (67)
2. Mount Gibbs	Federal	29,702 (12,020)
	Federal	36,497 (14,770)
3. Convict Creek	Private	17 (7)
	Federal	80,568 (32,605)
4. Wheeler Ridge	Private	398 (161)
	Federal	28,805 (11,657)
5. Taboose Creek	Federal	30,508 (12,346)
6. Sawmill Canyon	Federal	32,198 (13,030)
	Private	22 (9)
7. Mount Baxter	Federal	32,560 (13,177)
	Federal	24,987 (10,112)
8. Mount Williamson	Federal	32,845 (13,292)
	Federal	22,037 (8,918)
9. Big Arroyo	Federal	30,421 (12,311)
	Federal	
10. Mount Langley	Federal	
	Federal	
11. Laurel Creek	Federal	
	Federal	
12. Olancha Peak	Federal	
	Federal	
Subtotal	Federal	416,407 (168,518)

TABLE 2.—PROPOSED CRITICAL HABITAT UNITS FOR SIERRA NEVADA BIGHORN SHEEP—Continued
[Area estimates reflect all land within critical habitat unit boundaries]

Critical habitat unit	Land ownership by type	Size of unit in acres (Hectares)
Grand Total*	Private	1,005 (407)
	Local Gov't	165 (67)
		417,577 (168,992)

*Columns may not sum exactly due to rounding of values.

TABLE 3.—OCCUPANCY OF SIERRA NEVADA BIGHORN SHEEP BY PROPOSED CRITICAL HABITAT UNITS.

Unit	Occupied at time of listing?	Currently occupied?	Size of unit in acres (Hectares)
1. Mount Warren	Yes	Yes	36,013 (14,574)
2. Mount Gibbs	Yes	Yes	29,702 (12,020)
3. Convict Creek	No	No	36,514 (14,777)
4. Wheeler Ridge	Yes	Yes	80,966 (32,766)
5. Taboose Creek	No	No	28,805 (11,657)
6. Sawmill Canyon	Yes	Yes	30,508 (12,346)
7. Mount Baxter	Yes	Yes	32,220 (13,039)
8. Mount Williamson	Yes	Yes	32,560 (13,177)
9. Big Arroyo	No	No	24,987 (10,112)
10. Mount Langley	Yes	Yes	32,845 (13,292)
11. Laurel Creek	No	No	22,037 (8,918)
12. Olancha Peak	No	No	30,421 (12,311)
*Total			417,578 (168,992)

*Columns may not sum exactly due to rounding of values.

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for Sierra Nevada bighorn sheep, below.

Universal Transverse Mercator (UTM) coordinates and more precise legal descriptions of each unit are provided in the Proposed Regulation Promulgation section.

Sierra Nevada bighorn sheep throughout their range utilize a range of elevations from about 4,790 ft (1,460 m) to above 14,100 ft (4,300 m) (Wehausen 1980, pp. 3, 82). As described in the "Criteria Used To Identify Critical Habitat" section above, the Service used modeling to further refine and clarify our knowledge of those areas that may be essential to the conservation of the subspecies. Based on these modeling efforts, Sierra Nevada bighorn sheep habitat is known to be available as low as elevation 4,000 ft (1,219 m) in the southern portion of its range (Johnson et al. 2005). Within this elevational range, a variety of vegetation communities occur including from lowest to highest, sagebrush-bitterbrush-bunchgrass scrub; pinyon-juniper woodland and mountain mahogany scrub; mid-elevation and subalpine, meadows, forests, and woodlands; and alpine meadows and other habitats from cliffs to plateaus (Service 2003, p. 3). All units contain one or more of these habitat types in varying amounts.

Unit 1: Mount Warren

Unit 1 consists of approximately 36,013 ac (14,574 ha) in Tuolumne and Mono Counties. Unit 1 is generally located within an area bounded on the east by U.S. Highway 395 (located about 1 mi (1.6 km) away), on the south by State Route 120, on the north by Green Creek and on the west by the ridge connecting Ragged Peak in the south to Camiaca Peak in the north. It is located northwest of the town of Lee Vining. Land ownership within the unit includes approximately 35,279 ac (14,277 ha) of Federal land, 165 ac (67 ha) of Los Angeles Department of Water and Power lands, and 568 ac (230 ha) of other private land. The Federal land is administered by the Humboldt-Toiyabe and Inyo National Forests, Yosemite National Park, and Bureau of Land Management.

Unit 1 begins at a low elevation of about 7,500 ft (2,286 m) on the eastern slope and rises to about 12,000 ft (3,658 m) on the west. It encompasses some areas from 12,000 to over 14,000 ft (3,658 to 4,267 m). It is the northernmost unit proposed for critical habitat designation for the Sierra Nevada bighorn sheep. This unit was occupied at the time of listing (65 FR 20, January 3, 2000; Wehausen 1996, p. 477; Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997, pp. 6–7; Wehausen 1999, pp. 6, 8; 2000, pp.

5–7) and is currently occupied with a minimum population estimate of 26 individuals (Wehausen and Stephenson 2006, p. 7). Unit 1 contains all of the features essential to the conservation of the Sierra Nevada bighorn sheep. It contains a range of vegetation types, and steep, rocky terrain which provides for foraging (summer and winter), mating, lambing, predator avoidance, and bedding and allows for seasonal elevational movements (PCE 1 and PCE 2) (Service 2003, pp. 3–7; Johnson et al. 2005, pp. 4–14, 31–32, 34, 37–38) and mineral licks (PCE 3) (Chow 1992, p. 52). This unit has good high-and-low elevation winter habitat in the area north of Lee Vining Canyon. Mount Warren has a minimum winter range elevation of about 7,546 ft (2,300 m), while Tioga Crest has this type of habitat at 9,515 ft (2,900 m). In the Lundy Canyon area there is good low-elevation south-facing winter range near 8,038 ft (2,450 m). Dunderberg Peak can provide large areas free of snow in the winter. It does not connect to low-elevation winter range but does connect to summer range in Lundy Canyon; visual winter range condition is mixed to open (Service 2003, pp. 112, 114).

PCEs within unit 1 may require special management considerations or protection to ameliorate the threats of overgrazing and the possible occurrence of disease transmission due to the

proximity of this unit to Forest Service grazing allotments (Clifford *et al.* 2007, pp. 13–14). Additionally, the PCEs within this unit may require special management considerations or protection to reverse the impacts of fire suppression which would provide more open habitat and potentially reduce predation, and for recreation (e.g., Virginia Lakes, Lundy Lake, Lee Vining Canyon) and development activities (Sections of State Highway 120 are located in this unit). Furthermore, PCEs within unit 1 may require special management considerations or protection in the form of avalanche control to protect against catastrophic events.

Unit 2: Mount Gibbs

Unit 2 consists of approximately 29,702 ac (12,020 ha) in Tuolumne and Mono Counties. Unit 2 is generally bounded on the north by State Route 120 with U.S. Highway 395 located approximately 4 mi (6.4 km) to the east. Route 158 lies along a portion of the southeastern boundary of this unit. The unit is bounded on the west, in part, by Lyell Canyon. It is immediately south of Unit 1 (Mount Warren) and is located southwest of the town of Lee Vining. Land ownership within the unit includes approximately 29,702 ac (12,020 ha) of Federal land. Federal land is administered by the Inyo National Forest and Yosemite National Park.

Unit 2 begins at a low elevation of about 7,500 ft (2,286 m) on the eastern slope and rises to 9,000 to 12,000 ft (2,743–3,658 m) on the west. It encompasses areas from 12,000 to over 14,000 ft (3,658–4,267 m). Unit 2 was occupied at the time of listing (65 FR 20, January 3, 2000; Wehausen 1996, p. 477; Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997, pp. 6–7; Wehausen 1999, pp. 7–8; 2000, pp. 6–7) and is currently occupied, with a minimum population estimate of 8 individuals (Wehausen and Stephenson 2006, p. 7). Unit 2 contains all of the features essential to the conservation of the Sierra Nevada bighorn sheep. It contains a range of vegetation types, and steep, rocky terrain which provides for foraging (summer and winter), mating, lambing, predator avoidance, and bedding and allows for seasonal elevational movements (PCE 1 and PCE 2) (Service 2003, pp. 3–7; Johnson *et al.* 2005, pp. 4–14, 31–32, 34, 37–38) and mineral licks (PCE 3) (Chow 1992, p. 52). An area between Mount Dana and Mount Wood provides considerable high-elevation habitat that is blown free of snow in the winter and connects to south-facing slopes that decline to lower elevations. Winter habitat occurs at a

minimum elevation of 2,775 m (9,105 ft) around Mount Gibbs, 8,859 ft (2,700 m) around Mount Lewis, and 7,546 ft (2,300 m) around Mount Wood; visual winter range condition is open (Service 2003, p. 112). The south-facing side of Mount Lewis is steep and supports little snow in winter. The slopes above Silver Lake offer low-elevation east-facing winter range to 7,599 ft (2,316 m). This area may provide birthing habitat in spring during some years (Service 2003, p. 115).

PCEs within unit 2 may require special management considerations or protection to ameliorate the threats of overgrazing and the possible occurrence of disease transmission due to the proximity of this unit to Forest Service grazing allotments (Clifford *et al.* 2007, pp. 13–14). Additionally, PCEs within this unit may require special management considerations or protection to reverse the impacts of fire suppression which would provide more open habitat and potentially reduce predation, and for recreation (e.g., Lee Vining Canyon) and development activities (Sections of State Highway 120 is located along the northern boundary of this unit; Route 158 lies along a portion of the southeastern boundary of this unit). Furthermore, PCEs within unit 2 may require special management considerations or protection in the form of avalanche control to protect against catastrophic events.

Unit 3: Convict Creek

Unit 3 consists of approximately 36,514 ac (14,777 ha) in Mono and Fresno Counties. Unit 3 is generally located within an area bounded on the northeast by U.S. Highway 395 (located about 2 mi (3.2 km) away), by Fish Creek and the boundary between Inyo and Sierra National Forests on the west, and by Mono Creek on the south. This unit is located about 3 mi (4.8 km) south of the town of Mammoth Lakes. Land ownership within the unit includes approximately 36,497 ac (14,770 ha) of Federal land and 17 ac (7 ha) of private land. Federal land is administered by the Inyo and Sierra National Forests.

Unit 3 begins at a low elevation of about 7,500 ft (2,286 m) and rises to about 10,500 to 12,000 ft (3,200–3,658 m). The unit encompasses areas from 12,000 to over 14,000 ft (3,658–4,267 m). This unit was not occupied at the time of listing and is not currently occupied, but is essential to the conservation of the Sierra Nevada bighorn sheep. The unit contains a range of vegetation types, and steep, rocky terrain which provides for foraging (summer and winter), mating,

lambing, predator avoidance, and bedding and allows for seasonal elevational movements (PCE 1 and PCE 2) (Service 2003, pp. 3–7; Johnson *et al.* 2005, pp. 4–14, 31–32, 34, 37–38). Mineral licks (PCE 3) may or may not occur in this unit. This unit contains south-facing winter habitat above Convict Lake that descends down to 7,874 ft (2,400 m). This habitat is connected to high-elevation windswept patches on Laurel and Bloody Mountains. McGee Mountain has south-facing winter habitat down to about 8,005 ft (2,440 m) but only a small amount of high-elevation habitat. Nevahbe Ridge has windblown habitat but it is east-facing and occurs down to 8,530 ft (2,600 m) (Service 2003, pp. 112, 116). Visual winter range condition is open (Service 2003, p. 112).

While this unit was not occupied at the time of listing, Sierra Nevada bighorn sheep occupied the area historically (Ober 1931, p. 32; Jones 1950, p. 40; Buechner 1960, p. 69; Barrett 1965, p. 43; Dunaway 1971, p. 19; Wehausen *et al.* 1987 p.66; Wehausen 1988a, p. 100). This unit is essential to the conservation of the Sierra Nevada bighorn sheep for, increasing the number of herds to reduce the significance of losing any particular herd, increasing population viability, decreasing the degree of fragmentation of the current geographic distribution between this unit and Units 4 (Wheeler Ridge) and 2 (Mount Gibbs), increasing opportunities for genetic exchange between these units, and increasing overall herd numbers to reduce extinction risk from stochastic events. Conservation of this unit is necessary to achieve the long-term viability of this subspecies within its range.

Unit 4: Wheeler Ridge

Unit 4 consists of approximately 80,966 ac (32,766 ha) in Fresno, Inyo, and Mono Counties. Unit 4 is generally located within an area bounded by U.S. Highway 395 (located about 5 to 17 mi (8 to 27.4 km) to the east), by Evolution Creek on the south, by Pavilion Dome, Pilot Nob, and Mills Creek on the west, and by Mono Creek on the north. This unit is located about 12 mi (19.3 km) west of the town of Bishop. Land ownership within the unit includes approximately 80,568 ac (32,605 ha) of Federal land and 398 ac (161 ha) of private land. Federal land is administered by the Inyo and Sierra National Forests, Kings Canyon National Park, and the Bureau of Land Management.

Unit 4 begins at a low elevation of about 5,500 ft (1,676 m) on the eastern slope and rises to about 12,000 ft (3,658

m) on the west. It encompasses numerous areas from 12,000 to over 14,000 ft (3,658–4,267 m). This unit was occupied at the time of listing (65 FR 20, January 3, 2000; Wehausen 1996, p. 477; Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997, pp. 6–7; Wehausen 1999, pp. 5–6, 8; 2000, pp. 3–5, 7) and is currently occupied with a minimum population estimate of 113 individuals (Wehausen and Stephenson 2006, p. 7). Unit 4 contains features that are essential to the conservation of the Sierra Nevada bighorn sheep. The unit contains a range of vegetation types, and steep, rocky terrain which provides for foraging (summer and winter), mating, lambing, predator avoidance, and bedding and allows for seasonal elevational movements (PCE 1 and PCE 2) (Service 2003, pp. 3–7; Johnson *et al.* 2005, pp. 4–14, 31–32, 34, 37–38) and mineral licks (PCE 3, Stephenson 2007, p. 1). The area around Wheeler Ridge provides minimum winter habitat at 5,578 ft (1,700 m) and is visually open (Service 2003, p. 112). Mount Tom is located south of Wheeler Ridge and provides an open winter visual condition and winter habitat at a minimum elevation of 6,398 ft (1,950 m) in Elderberry Canyon (Service 2003, p. 112, 115–116). High-elevation winter habitat is extensive on the west side of Mount Tom's north ridge. Narrow ridges on the south side can be snow free. Between Basin Mountain and Mount Humphreys, the plateau remains snow free and is accessible to sheep traveling ridge lines from Mount Tom by Four Gables and along the crest.

PCEs within unit 4 may require special management considerations or protection to ameliorate the threats of overgrazing and the possible occurrence of disease transmission due to the proximity of this unit to Forest Service grazing allotments (Clifford *et al.* 2007, pp. 13–14). Additionally, PCEs within this unit may require special management considerations or protection to reverse the impacts of fire suppression which would provide more open habitat and potentially reduce predation. Finally, PCEs within unit 4 may require special management considerations or protection for the threats due to mining, development, and recreation (e.g., Pine Creek area) and avalanche control may be needed to protect against catastrophic events.

Unit 5: Taboose Creek

Unit 5 consists of approximately 28,805 ac (11,657 ha) in Inyo and Fresno Counties. Unit 5 is generally located within an area bounded on the north by Big Pine Creek and on the south by

Taboose Creek. U.S. Highway 395 is about 8.5 mi (13.7 km) to the east, and Marion and Observation Peaks are located to the west. This unit is located about 5 mi (8 km) southwest of the town of Big Pine. Land ownership within the unit includes approximately 28,805 ac (11,657 ha) of Federal land. Federal land is administered by the Inyo National Forest and Kings Canyon National Park.

Unit 5 begins at a low elevation of about 6,000 ft (1,829 m) on the eastern slope and rises to 12,000 to over 14,000 ft (3,658–4,267 m) on the west. This unit was not occupied at the time of listing and is not currently occupied, but is essential to the conservation of the Sierra Nevada bighorn sheep. The unit contains a range of vegetation types, and steep, rocky terrain which provides for foraging (summer and winter), mating, lambing, predator avoidance, and bedding and allows for seasonal elevational movements (PCE 1 and PCE 2) (Service 2003, pp. 3–7; Johnson *et al.* 2005, pp. 4–14, 31–32, 34, 37–38). Mineral licks (PCE 3) may or may not occur in this unit. High windblown areas (9,187 ft (2,800 m)) occur on Birch and Kid Mountains that may support bighorn sheep. There appears to be limited low-elevation south- or east-facing habitat unless animals move south to Red Mountain or Taboose Creeks. Taboose Creek offers patches of high-elevation winter habitat and south-facing low-elevation habitat where it occurs as low as 6,398 ft (1,950 m). The northeast side of Kid Mountain provides some low habitat near 7,218 ft (2,200 m) (Service 2003, pp. 113, 118). The winter range visual condition is open in these areas (Service 2003, p. 113).

While this unit was not occupied at the time of listing, Sierra Nevada bighorn sheep occupied the area historically (Ober 1914, p. 125; Jones 1950, p. 38; Buechner 1960, 69; Dunaway 1971 p. 19; Wehausen *et al.* 1987 p.66; Wehausen 1988a, p. 101; Berger 1990, p.94). This unit is essential to the conservation of the Sierra Nevada bighorn sheep for increasing the number of herds to reduce the significance of losing any particular herd, increasing population viability, decreasing the degree of fragmentation of the current geographic distribution between this unit and Units 6 (Sawmill Canyon) and 4 (Wheeler Ridge), increasing opportunities for genetic exchange between these units, and increasing overall herd numbers to reduce extinction risk from stochastic events. Conservation of this unit is necessary to achieve the long-term viability of this subspecies within its range.

Unit 6: Sawmill Canyon

Unit 6 consists of about 30,508 ac (12,346 ha) in Fresno and Inyo Counties. Unit 6 is generally located within an area bounded on the east by U.S. Highway 395 (located about 3 mi (4.8 km) away), on the south by Unit 7 (Mount Baxter) and Sawmill Pass and Creek, on the west by Woods Creek and the South Fork of Woods Creek, and on the north by Taboose Creek. Land ownership within the unit includes approximately 30,508 ac (12,346 ha) of Federal land. Federal land is administered by the Inyo National Forest and Kings Canyon National Park.

Unit 6 begins at a low elevation of about 4,500 ft (1,372 m) on the eastern slope and rises to about 10,500 to 12,000 ft (3,200–3,658 m). It encompasses a few areas from 12,000 to over 14,000 ft (3,658–4,267 m). Unit 6 was occupied at the time of listing (65 FR 20, January 3, 2000; Wehausen 1996, p. 477; Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997, pp. 6–7; Wehausen 1999, pp. 4–5, 8; 2000, pp. 3, 7) and is currently occupied with a minimum population estimate of 36 individuals (Wehausen and Stephenson 2006, p. 7). Unit 6 has features that are essential to the conservation of the Sierra Nevada bighorn sheep. It contains a range of vegetation types, and steep, rocky terrain which provides for foraging (summer and winter), mating, lambing, predator avoidance, and bedding and allows for seasonal elevational movements (PCE 1 and PCE 2) (Service 2003, pp. 3–7; Johnson *et al.* 2005, pp. 4–14, 31–32, 34, 37–38). It is not known if mineral licks (PCE 3) occur on this unit. Unit 6 provides foraging habitat at the northern boundary near Mount Pinchot (Service 2003, p. 118). In addition, minimum elevations of winter habitat occur in the Goodale Creek area at 6,890 ft (2,100 m) and in the Sawmill Creek area at 4,922 ft (1,500 m); winter visual condition is open (Service 2003, p. 113).

PCEs within unit 6 may require special management considerations or protection to reverse the impacts of fire suppression which would provide more open habitat and potentially reduce predation. Unit 6 PCEs also may require special management considerations or protection for threats due to recreation, and avalanche control may be needed to protect against catastrophic events.

Unit 7: Mount Baxter

Unit 7 consists of approximately 32,220 ac (13,039 ha) in Fresno and Inyo Counties. Unit 7 is generally located within an area bounded on the east by U.S. Highway 395 (located about 3 mi

(4.8 km) away), on the south by Bubbs Creek and the Road 13S17 to Independence, on the west by Mount Bago, Gardiner Lakes, and Mount Clarence King, and on the north by Unit 6 (Sawmill Canyon) and Sawmill Pass and Creek. This unit is located about 6 mi (9.7 km) west of the town of Independence. Land ownership within the unit includes approximately 32,198 ac (13,030 ha) of Federal land and 22 ac (9 ha) of private land. Federal land is administered by the Inyo National Forest and Kings Canyon National Park.

Unit 7 begins at a low elevation of about 4,500 ft (1,372 m) on the eastern slope and rises to about 10,500 to 12,000 ft (3,200–3,658 m) on the west. It encompasses areas from 12,000 to over 14,000 ft (3,658–4,267 m). Unit 7 was occupied at the time of listing (65 FR 20, January 3, 2000; Wehausen 1996, p. 477; Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997, pp. 6–7; Wehausen 1999, pp. 3–4, 8; 2000, pp. 2–3, 7) and is currently occupied with a minimum population estimate of 69 individuals (Wehausen and Stephenson 2006, p. 7). Unit 7 contains features that are essential to the conservation of the Sierra Nevada bighorn sheep. It contains a range of vegetation types, and steep, rocky terrain which provides for foraging (summer and winter), mating, lambing, predator avoidance, and bedding and allows for seasonal elevational movements (PCE 1 and PCE 2) (Service 2003, pp. 3–7; Johnson *et al.* 2005, pp. 4–14, 31–32, 34, 37–38) and mineral licks (PCE 3) (Jones 1950, p. 63; Hicks and Elder 1979, p. 911). This unit provides foraging habitat along the ridges and in drainages of Mount Baxter. Minimum elevations of winter habitat in the Thibaut-Sand Mountain area occur at 5,003 ft (1,525 m), and in the Onion Valley area at 7,546 ft (2,300 m); winter visual condition is open (Service 2003, p. 113).

In addition to containing the features essential to the conservation of the Sierra Nevada bighorn sheep, Unit 7 has additional conservation value as it served as a source population, due to its size and productivity, for reintroductions to the Wheeler Crest area (1979, 1980, 1982, 1986, 1988), Mount Langley (1980 and 1982), and Lee Vining Canyon area (1986, 1988) (Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997, p. 6). Individuals from this population may be used for future translocations within the range.

PCEs within unit 7 may require special management considerations or protection to reverse the impacts of fire suppression which would provide more

open habitat and potentially reduce predation. PCEs within unit 7 also may require special management considerations or protection for threats due to recreation (e.g., Baxter Pass and Onion Valley), and avalanche control may be needed to protect against catastrophic events.

Unit 8: Mount Williamson

Unit 8 consists of about 32,560 ac (13,177 ha) in Inyo and Tulare Counties. Unit 8 is generally located within an area bounded on the east by U.S. 395 (located about 9 mi (14.5 km) away), on the south by Tulainyo Lake, on the west by the Kern River (located about 3.5 miles (5.6 km) away), and on the north by Road 13S17 to Independence about 1.5 mi (2.4 km) away. This unit is located southwest of the town of Independence and northwest of the town of Lone Pine. Land ownership within the unit includes approximately 32,560 ac (13,177 ha) of Federal land. Federal land is administered by the Inyo National Forest and Sequoia and Kings Canyon National Parks.

Unit 8 begins at a low elevation of about 6,000 ft (1,829 m) on the eastern slope and rises to 12,000 to over 14,000 ft (3,658–4,267 m) on the west. Unit 8 was occupied at the time of listing (65 FR 20, January 3, 2000; Wehausen 1996, p. 477; Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997, pp. 6–7; Wehausen 1999, pp. 2–3, 8; 2000, pp. 1–2, 7) and is currently occupied with a minimum population estimate of 20 individuals (Wehausen and Stephenson 2006, p. 7). Unit 8 contains features that are essential to the conservation of the Sierra Nevada bighorn sheep. The unit contains a range of vegetation types, and steep, rocky terrain which provides for foraging (summer and winter), mating, lambing, predator avoidance, and bedding and allows for seasonal elevational movements (PCE 1 and PCE 2) (Service 2003, pp. 3–7; Johnson *et al.* 2005, pp. 4–14, 31–32, 34, 37–38). It is not known if mineral licks (PCE 3) occur in this unit. The Shepherd Creek-Pinyon Creek area in this unit offers winter habitat at a minimum elevation of 6,808 ft (2,075 m); the George Creek-North Bairs Creek provides this habitat at 6,234 ft (1,900 m) (Service 2003, p. 113). The winter visual condition is mixed (Service 2003, p. 113).

PCEs within unit 8 may require special management considerations or protection to reverse the impacts of fire suppression which would provide more open habitat and potentially reduce predation. This unit could provide an estimated additional 1,433 ac (5.8 km²) of winter range with a relative

probability of equal to or greater than 10 percent use if forests were reduced by burning (Johnson *et al.* 2005, p. 34). Furthermore, PCEs within unit 8 also may require special management considerations or protection for threats due to recreation (e.g., Whitney Portal and Trailhead), and avalanche control may be needed to protect against catastrophic events.

Unit 9: Big Arroyo

Unit 9 consists of approximately 24,987 ac (10,112 ha) in Tulare County. Unit 9 is generally located within an area bounded on the east by the Kern River, on the north by Kern-Kaweah River, Junction Meadow, and Wallace Creek area, and on the west and south by the Big Arroyo Creek. Land ownership within the unit includes approximately 24,987 ac (10,112 ha) of Federal land. Federal land is administered by Sequoia National Park.

Unit 9 begins at a low elevation of about 6,500 ft (1,981 m) on the eastern slope and rises to about 12,000 ft (3,658 m) on the west. The northern boundary encompasses areas from 12,000 to over 14,000 ft (3,658–4,267 m). This unit was not occupied at the time of listing and is not currently occupied, but is essential to the conservation of Sierra Nevada bighorn sheep. The unit contains a range of vegetation types, and steep, rocky terrain which provides for foraging (summer and winter), mating, lambing, predator avoidance, and bedding and allows for seasonal elevational movements (PCE 1 and PCE 2) (Service 2003, pp. 3–7; Johnson *et al.* 2005, pp. 4–14, 31–32, 34, 37–38). It is not known if mineral licks (PCE 3) are located within this unit. This unit contains no high-elevation wind-swept areas (Service 2003, p. 121). Winter habitat is provided at a minimum elevation of 6,890 ft (2,100 m) with a mixed visual condition due to scattered trees (Service 2003, pp. 113, 121). From the upper end of the Big Arroyo drainage, sheep could find access to alpine habitat on Kaweah Peaks.

While this unit was not occupied at the time of listing, Sierra Nevada bighorn sheep occupied the area historically (Jones 1950, p. 35; Buecher 1960, p. 69; Barrett 1965, p. 43; Riegelhuth 1965, p. 35; Wehausen 1988b, p. 100). This unit is essential to the conservation of the Sierra Nevada bighorn sheep for increasing the number of herds to reduce the significance of losing any particular herd, increasing population viability, decreasing the degree of fragmentation of the current geographic distribution between this unit and Units 10 (Mount Langley) and 8 (Mount Williamson), increasing

opportunities for genetic exchange between these units, and increasing overall herd numbers to reduce extinction risk from stochastic events. Conservation of this unit is necessary to achieve the long-term viability of this subspecies within its range.

Unit 10: Mount Langley

Unit 10 consists of approximately 32,845 ac (13,292 ha) in Inyo and Tulare Counties. Unit 10 is generally located within an area bounded on the east by Route 190 located from immediately adjacent to the unit to 7 mi (11.3 km) away, on the south by Muah Mountain, on the west by Cirque Peak and Perrin Creek area, and on the north by Lone Pine Creek. This unit is located about 7 mi (11.3 km) southwest of the town of Lone Pine. Land ownership within the unit includes approximately 32,845 ac (13,292 ha) of Federal land. Federal land is administered by the Inyo National Forest, Sequoia National Park, and Bureau of Land Management.

Unit 10 begins at a low elevation of about 4,500 ft (1,372 m) on the eastern slope and rises to 9,000 to 12,000 ft (2,743–3,658 m) on the west side. It encompasses areas between 12,000 and 14,000 ft (3,658–4,267 m). Unit 10 was occupied at the time of listing (65 FR 20, January 3, 2000; Wehausen 1996, p. 477; Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997, pp. 6–7; Wehausen 1999, pp. 1–2, 8; 2000, pp. 1, 7) and is currently occupied with a minimum population estimate of 90 individuals (Wehausen and Stephenson 2006, p. 7). Unit 10 contains features that are essential to the conservation of the Sierra Nevada bighorn sheep. The unit contains a range of vegetation types, and steep, rocky terrain which provides for foraging (summer and winter), mating, lambing, predator avoidance, and bedding and allows for seasonal elevational movements (PCE 1 and PCE 2) (Service 2003, pp. 3–7; Johnson *et al.* 2005, pp. 4–14, 31–32, 34, 37–38). It is not known if mineral licks (PCE 3) occur in this unit. The unit provides low elevation (5,742 ft (1,750 m)) mixed winter range in the Carroll Creek-Turtle Creek area. It also provides low-elevation (4,757 ft (1,450 m)), open winter range in the Slide Canyon-Cottonwood Creek area (Service 2003, pp. 113, 119). From this area it is thought bighorn sheep could cross a short distance of the open south-facing forest by Wonoga Peak to access the large open plateau country. It is also possible that bighorn sheep using the Cottonwood Creek area use summer range to the southeast of the Kern Plateau where elevations are about

10,000 ft (3,048 m) (Service 2003, pp. 119–120).

PCEs within unit 10 may require special management considerations or protection to reverse the impacts of fire suppression which would provide more open habitat and potentially reduce predation. This unit could provide an estimated additional 1,161 ac (4.7 km²) of winter range with a relative probability of equal to or greater than 10 percent use if forests were reduced by burning (Johnson *et al.* 2005, p. 34). PCEs within unit 10 also may require special management considerations or protection for threats due to recreation (*e.g.*, Whitney Portal and Trailhead), and development (Route 190 crosses a portion of this unit). Furthermore, PCEs within unit 10 may require special management considerations or protection in the form of avalanche control to protect against catastrophic events.

Unit 11: Laurel Creek

Unit 11 consists of approximately 22,037 ac (8,918 ha) in Tulare County. Unit 11 is generally located within an area bounded on the east by the Kern River, on the south by Pistol, Laurel, and Golden Trout Creeks, on the west by a portion of Little Kern River, and on the north by Soda Creek. Land ownership within the unit includes approximately 22,037 ac (8,918 ha) of Federal land. Federal land is administered by the Sequoia National Forest and Sequoia National Park.

Unit 11 begins at a low elevation of about 6,500 ft (1,981 m) on the eastern slope and rises to 10,500 to 12,000 ft (3,200–3,658 m) on the west. It includes a few small areas from 12,000 to over 14,000 ft (3,658–4,267 m). This unit was not occupied at the time of listing and is not currently occupied, but is essential to the conservation of Sierra Nevada bighorn sheep. The unit contains a range of vegetation types, and steep, rocky terrain which provides for foraging (summer and winter), mating, lambing, predator avoidance, and bedding and allows for seasonal elevational movements (PCE 1 and PCE 2) (Service 2003, pp. 3–7; Johnson *et al.* 2005, pp. 4–14, 31–32, 34, 37–38). It is unknown whether mineral licks (PCE 3) occur in this unit. This unit contains no high-elevation wind-swept areas (Service 2003, p. 121). Winter habitat is provided at a minimum elevation of 6,808 ft (2,075 m) with a mixed visual condition due to scattered trees (Service 2003, pp. 113, 121). Laurel Creek provides access to summer range.

While this unit was not occupied at the time of listing, Sierra Nevada bighorn sheep occupied the area

historically (Buechner 1960 p. 69; Barrett 1965, p. 43; Wehausen 1988b, p. 100). This unit is essential to the conservation of the Sierra Nevada bighorn sheep for increasing the number of herds to reduce the significance of losing any particular herd, increasing population viability, decreasing the degree of fragmentation of the current geographic distribution between this unit and Unit 10 (Mount Langley), increasing opportunities for genetic exchange between these units, and increasing overall herd numbers to reduce extinction risk from stochastic events. Conservation of this unit is necessary to achieve the long-term viability of this subspecies within its range.

Unit 12: Olancha Peak

Unit 12 consists of approximately 30,421 ac (12,311 ha) in Tulare and Inyo Counties. Unit 12 is generally located within an area bounded on the east by U.S. Highway 395, on the south by Falls and Walker Creeks, on the west by portions of the Pacific Crest National Scenic Trail, and on the north by Muah Mountain. This unit is located west of the towns of Cartago and Olancha. Land ownership within the unit includes approximately 30,421 ac (12,311 ha) of Federal land. Federal land is administered by the Inyo National Forest and Bureau of Land Management.

Unit 12 begins at a low elevation of about 4,000 ft (1,219 m) on the eastern slope and rises to about 9,000 to 10,500 ft (2,743–3,200 m) on the west. It is the southernmost unit proposed for critical habitat designation for the Sierra Nevada bighorn sheep. This unit was not occupied at the time of listing and is not currently occupied, but is essential to the conservation of the Sierra Nevada bighorn sheep. The unit contains a range of vegetation types, and steep, rocky terrain which provides for foraging (summer and winter), mating, lambing, predator avoidance, and bedding and allows for seasonal elevational movements (PCE 1 and PCE 2) (Service 2003, pp. 3–7; Johnson *et al.* 2005, pp. 4–14, 31–32, 34, 37–38). It is not known if mineral licks (PCE 3) occur within this unit. This unit provides bighorn sheep habitat in the areas of Ash, Braley, Cartago, Olancha, and Falls Creeks. Carago, Olancha and Falls Creeks connect by Olancha Canyon to Olancha Peak (12,123 ft) (3,695 m) which provides some alpine summer habitat (southernmost in the Sierra Nevada) (Service 2003, p. 120). Winter range occurs as open, low-elevation (4,757 ft (1,450 m)), south-facing slopes (Service 2003, pp. 113, 120).

While this unit was not occupied at the time of listing, Sierra Nevada bighorn sheep occupied the area historically (Jones 1950, p. 39; Wehausen *et al.* 1987, p. 66; Wehausen 1988a, p. 101). This unit is essential to the conservation of the Sierra Nevada bighorn sheep for increasing the number of herds to reduce the significance of losing any particular herd, increasing population viability, decreasing the degree of fragmentation of the current geographic distribution between this unit and Unit 10 (Mount Langley), increasing opportunities for genetic exchange between these units, and increasing overall herd numbers to reduce extinction risk from stochastic events. Conservation of this unit is necessary to achieve the long-term viability of this subspecies within its range.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7 of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. Decisions by the 5th and 9th Circuit Court of Appeals have invalidated our definition of "destruction or adverse modification" (50 CFR 402.02) (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service*, 378 F.3d 1059 (9th Cir. 2004) and *Sierra Club v. U.S. Fish and Wildlife Service et al.*, 245 F.3d 434, 442F (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under current national policy and the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the primary constituent elements to be functionally established) to serve the intended conservation role for the species.

Section 7(a)(4) of the Act requires Federal agencies to confer with us on any action that is likely to jeopardize the continued existence of a species proposed for listing under the Act or result in destruction or adverse modification of proposed critical habitat. This is a procedural requirement only. However, once a species proposed for listing becomes listed, or proposed critical habitat is designated as final, the full prohibitions of section 7(a)(2) apply to any Federal action. The primary utility of the conference procedures is to allow a

Federal agency to maximize its opportunity to adequately consider species proposed for listing and proposed critical habitat and to avoid potential delays in implementing the proposed action because of the section 7(a)(2) compliance process, should we list those species or designate the critical habitat.

We may provide advisory conservation recommendations to assist the agency in eliminating conflicts that the proposed action may cause. We may conduct either an informal or a formal conference. We typically use an informal conference if the proposed action is not likely to have any adverse effects to the species proposed for listing or proposed critical habitat. We typically use formal conferences when we or the Federal agency believes the proposed action is likely to cause adverse effects to species proposed for listing or proposed critical habitat, inclusive of those that may cause jeopardy or adverse modification.

We generally provide the results of an informal conference in a conference report, while we provide the results of a formal conference in a conference opinion. We typically prepare conference opinions on proposed critical habitat according to 50 CFR 402.14, as if the proposed critical habitat were already designated. We may adopt the conference opinion as the biological opinion when the critical habitat is designated, if no substantial new information or changes in the action alter the content of the opinion (see 50 CFR 402.10(d)). As noted above, any conservation recommendations in a conference report or opinion are strictly advisory.

If a species is listed or critical habitat is designated, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. As a result of this consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that are likely to adversely affect listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to result in jeopardy to a listed species or

the destruction or adverse modification of critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. We define "Reasonable and prudent alternatives" at 50 CFR 402.02 as alternative actions identified during consultation that:

- Can be implemented in a manner consistent with the intended purpose of the action,
- Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,
- Are economically and technologically feasible, and
- Would, in the Director's opinion, avoid jeopardy to the listed species or destruction or adverse modification of critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, some Federal agencies may request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions may affect subsequently listed species or designated critical habitat or adversely modify or destroy proposed critical habitat.

Federal activities that may affect the Sierra Nevada bighorn sheep or its designated critical habitat will require section 7 consultation under the Act. Activities on state, tribal, local or private lands requiring a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 et seq.) or a permit from us under section 10(a)(1)(B) of the Act) or involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) are also subject to the section 7 consultation process. Federal actions not affecting listed species or critical habitat, and actions on State, Tribal, local or private lands that are not federally funded, authorized, or permitted, do not require section 7 consultations.

Application of the "Adverse Modification" Standard

The analytical framework described in the Director's December 9, 2004, memorandum will be used to complete section 7(a)(2) analysis for Federal actions affecting Sierra Nevada bighorn sheep critical habitat. The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species, or would retain its current ability for the primary constituent elements to be functionally established. Activities that may destroy or adversely modify critical habitat are those that alter the PCEs to an extent that appreciably reduces the conservation value of critical habitat for Sierra Nevada bighorn sheep. Generally, the conservation role of Sierra Nevada bighorn sheep critical habitat units is to support viable core area populations.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe in any proposed or final regulation that designates critical habitat, those activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that, when carried out, funded, or authorized by a Federal agency, may affect critical habitat and therefore should result in consultation for Sierra Nevada bighorn sheep include, but are not limited to:

(1) Actions that would significantly reduce ongoing management and conservation efforts that benefit the Sierra Nevada bighorn sheep on public lands. Such activities could include, but are not limited to, the sale, exchange, or lease of lands managed by the United States Forest Service (USFS) or other Federal agency. These activities could reduce the amount of space that is available for individual and population growth and normal behavior, as well as reduce or eliminate the number and extent of sites for foraging, breeding, reproduction, and rearing of offspring. These activities could also reduce the opportunities available to Federal agencies to exercise their section 7(a)(1) responsibilities to carry out programs to conserve listed species.

(2) Actions that would significantly reduce the availability of or accessibility to summer and winter ranges. Such activities could include, but are not limited to, grazing, mining, and road construction activities. These activities could degrade, reduce, fragment or eliminate available foraging resources or

alter current foraging activities of Sierra Nevada bighorn sheep.

(3) Actions that would result in the significant expansion of tall, dense vegetation such as timber within bighorn sheep habitat. Such activities could include, but are not limited to, fire suppression. These activities could allow expansion of vegetation cover such that movement patterns of bighorn sheep are altered by avoidance of these areas. Tall, dense vegetation provides cover for predators such as the mountain lion, a common predator of Sierra Nevada bighorn sheep.

(4) Actions that would create significant barriers to movement. Such activities could include, but are not limited to, road construction, and resort or campground facility development or expansion. These activities could interfere with movement within and between habitats reducing the availability of habitat for foraging, breeding, reproduction, sheltering, and rearing of offspring. These activities could also reduce opportunities for movement between existing populations. Dispersal and interaction between populations could be affected, restricting gene flow and jeopardizing the integrity of the gene pool. Road construction can result in the direct mortality of individuals through collisions with vehicles.

(5) Actions that would significantly degrade habitat or cause a disturbance to Sierra Nevada bighorn sheep. Such activities could include, but are not limited to, recreational activities, such as off-road vehicle use, hiking, camping, rock climbing, and outfitter guides and pack animal expeditions. These activities could impact the quality and quantity of forage across landscape or displace animals from key foraging areas. These activities could also impact the accessibility to key habitats such as escape terrain, breeding sites, or lambing areas. If animals flee these areas as a result of these activities, energy is expended which can negatively impact the animal's body condition, resulting in possible reduced reproductive success.

We consider all of the units proposed as critical habitat to contain features essential to the conservation of the Sierra Nevada bighorn sheep, including those units which were not occupied at the time of listing. All units are within the historic geographic range of the subspecies, and those units which were not occupied at the time of listing have been determined to be essential for the conservation of the Sierra Nevada bighorn sheep. Detailed descriptions of the units and their occupancy status can be found in each of the Unit

descriptions or within Table 3. Under section 7 of the Act, Federal agencies already consult with us on activities in areas currently occupied by the Sierra Nevada bighorn sheep, or if the subspecies may be affected by the action, to ensure that their actions do not jeopardize the continued existence of the Sierra Nevada bighorn sheep.

Application of Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary must designate and revise critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, impact on national security, and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the Congressional record is clear that the Secretary has broad discretion regarding which factor(s) to use and how much weight to give to any factor.

Under section 4(b)(2) of the Act, in considering whether to exclude a particular area from the designation, we must identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and determine whether the benefits of exclusion outweigh the benefits of inclusion. If we consider an exclusion then we must determine whether excluding the area would result in the extinction of the species.

In the following sections, we address a number of general issues that are relevant to the exclusions we are considering. In addition, we are conducting an economic analysis of the impacts of the proposed critical habitat designation and related factors, which will be available for public review and comment when it is complete. Based on public comment on that document, the proposed designation itself, and the information in the final economic analysis, the Secretary may exclude from critical habitat additional areas beyond those identified in this assessment under the provisions of section 4(b)(2) of the Act. This is also addressed in our implementing regulations at 50 CFR 242.19.

Currently, we are aware of four documents related to the conservation and recovery of the Sierra Nevada bighorn sheep. We reviewed these documents, but we are not currently

proposing the exclusion of lands covered by them for reasons indicated below. These documents include the Sierra Nevada Bighorn Sheep Recovery and Conservation Plan (Sierra Nevada Bighorn Sheep Interagency Advisory Group 1984), the Bighorn Sheep Management Plan (National Park Service 1986), the Inyo National Forest Resource & Management Plan (U.S. Forest Service 1988), and A Conservation Strategy for Sierra Nevada Bighorn Sheep (Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997). All of these documents were prepared prior to the emergency listing of the Sierra Nevada bighorn sheep in 1999.

The goal of the Sierra Nevada Bighorn Sheep Recovery and Conservation Plan (Sierra Bighorn Sheep Interagency Advisory Group 1984, pp. 1–2) was to improve the status of the Sierra Nevada bighorn sheep by (1) maintaining the health and viability of existing populations, and by promoting the establishment of at least 3 populations that exceeded 100 animals and were geographically distant from one another; (2) restoring bighorn sheep to former ranges within the Sierra Nevada where ecologically, economically, and politically feasible and where favorable to their success; and (3) ensuring genetic integrity by using only bighorn from existing Sierra Nevada populations to restock historic ranges. Conservation recommendations made in A Conservation Strategy for Sierra Nevada Bighorn Sheep (Sierra Nevada Bighorn Sheep Interagency Advisory Group 1997, pp. 11–14) related to restoration of the Sierra Nevada bighorn sheep in a distribution that assures long-term viability and reestablishment throughout its native range and included preservation of current populations, predator control, fire (let burn policy), grazing by domestic sheep and goats, genetic diversity, reintroductions and augmentations, and research and monitoring. The goal of the Bighorn Sheep Management Plan (National Park Service 1986, pp. 1–2) was to restore and perpetuate bighorn sheep and to protect the integrity of the ecosystem. Management was directed toward restoring and maintaining populations of bighorn sheep for ecological, scientific, educational, aesthetic, and recreational values. The Inyo National Forest's Land & Resource Management Plan (U.S. Forest Service 1988, pp. 101–102) provided guidance to maintain existing sheep habitat, expand the range of bighorn sheep by transplanting animals into suitable unoccupied habitats within the historic

range, maintain the health of existing herds by not allowing an increase in livestock use if disease transmission was shown to be harmful to bighorn sheep, and prohibit the conversion of livestock type from cattle to sheep on or adjacent to existing or approved reintroduction sites for the bighorn sheep.

The Inyo National Forest also established two California Bighorn Sheep Zoological Areas for the Mount Baxter and Mount Williamson herds. These areas totaled 4,505 acres (1,823 hectares) in addition to existing wilderness lands (36,235 acres (14,664 hectares)) occupied by bighorn sheep. In 1981, forest officials issued Order No. 04–81–3, which prohibited entrance into these areas without a valid visitor use permit, and restricted entrance into closed portions of the zoological areas during certain time periods, and the presence of dogs, or the discharge of firearms unless taking a game animal legally permitted by the State of California (U.S. Forest Service 1981, p. 1). Exemptions were allowed for certain individuals and duties/activities. This order was issued during a time when recreational use was thought to be having a detrimental impact on the Mount Baxter and Mount Williamson herds.

While these plans were prepared to assist in the restoration and recovery and habitat protection of the Sierra Nevada bighorn sheep, they were written prior to the listing of this subspecies, which occurred in 1999 and 2000, and they generally offer only guidance and recommendations related to translocations, research, monitoring, education, and habitat management with little specificity of actions to be implemented. The guidance provided in these documents and the recreational prohibitions in the California Bighorn Sheep Zoological Areas did not provide sufficient, nor necessarily appropriate, protections, to the Sierra Nevada bighorn sheep or its habitat to prevent its listing under the Act.

Economic Analysis

We are preparing an analysis of the economic impacts of proposing critical habitat for the Sierra Nevada bighorn sheep. We will announce the availability of the draft economic analysis as soon as it is completed, at which time we will seek public review and comment. At that time, copies of the draft economic analysis will be available for downloading from the Internet at <http://www.fws.gov/nevada>, or by contacting the Nevada Fish and Wildlife Office directly (see **ADDRESSES** section). We may exclude areas from the

final rule based on the information in the economic analysis.

Peer Review

In accordance with our joint policy published in the **Federal Register** on July 1, 1994 (59 FR 34270), we are obtaining the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of peer review is to ensure that our critical habitat designation is based on scientifically sound data, assumptions, and analyses. We have invited these peer reviewers to comment during this public comment period on our specific assumptions and conclusions in this proposed designation of critical habitat.

We will consider all comments and information we receive during this comment period on this proposed rule during our preparation of a final determination. Accordingly, our final decision may differ from this proposal.

Public Hearings

The Act provides for one or more public hearings on this proposal, if we receive any requests for hearings. Per 4(b)(5)(e), a request for hearing must be received within 45 days of publication of the proposal. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings in the **Federal Register** and local newspapers at least 15 days before the first hearing.

Required Determinations

Clarity of the Rule

Executive Order 12866 (Regulatory Planning and Review) requires each agency to write regulations and notices that are easy to understand. We invite your comments on how to make this proposed rule easier to understand, including answers to questions such as the following: (1) Are the requirements in the proposed rule clearly stated? (2) Does the proposed rule contain technical jargon that interferes with the clarity? (3) Does the format of the proposed rule (grouping and order of the sections, use of headings, paragraphing, and so forth) aid or reduce its clarity? (4) Is the description of the notice in the **SUPPLEMENTARY INFORMATION** section of the preamble helpful in understanding the proposed rule? (5) What else could we do to make this proposed rule easier to understand?

Send a copy of any comments on how we could make this proposed rule easier to understand to: Office of Regulatory Affairs, Department of the Interior, Room 7229, 1849 C Street, NW.,

Washington, DC 20240. You may e-mail your comments to this address: Exsec@ios.doi.gov.

Regulatory Planning and Review

In accordance with Executive Order (E.O.) 12866, this document is a significant rule in that it may raise novel legal and policy issues, but we do not anticipate that it will have an annual effect on the economy of \$100 million or more or affect the economy in a material way. Due to the tight timeline for publication in the **Federal Register**, the Office of Management and Budget (OMB) has not formally reviewed this rule. In order to determine the economic consequences of designating the specific area as critical habitat we are preparing a draft economic analysis of this proposed action, which will be available for public comment. This economic analysis also will be used to determine compliance with E.O. 12866, the Regulatory Flexibility Act, the Small Business Regulatory Enforcement Fairness Act, E.O. 12630, E.O. 13211, and E.O. 12875.

Further, E.O. 12866 directs Federal agencies promulgating regulations to evaluate regulatory alternatives (OMB, Circular A-4, September 17, 2003). Under Circular A-4, once an agency determines that the Federal regulatory action is appropriate, the agency must consider alternative regulatory approaches. Since the determination of critical habitat is a statutory requirement under the Act we must then evaluate alternative regulatory approaches, where feasible, when promulgating a designation of critical habitat.

In developing our designations of critical habitat, we consider economic impacts, impacts to national security, and other relevant impacts pursuant to section 4(b)(2) of the Act. Based on the discretion allowable under this provision, we may exclude any particular area from the designation of critical habitat providing that the benefits of such exclusion outweigh the benefits of specifying the area as critical habitat and that such exclusion would not result in the extinction of the species. As such, we believe that the evaluation of the inclusion or exclusion of particular areas, or a combination of both constitutes our regulatory alternative analysis for designations.

We will announce the availability of the draft economic analysis in the **Federal Register** and in local newspapers so that it is available for public review and comments. The draft economic analysis will also be available on the Internet at <http://www.fws.gov/>

nevada, or at the Nevada Fish and Wildlife Office (see **ADDRESSES**).

Regulatory Flexibility Act

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency must publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended RFA to require Federal agencies to provide a statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

At this time, we lack the available economic information necessary to provide an adequate factual basis for the required RFA finding. Therefore, we defer the RFA finding until completion of the draft economic analysis prepared under section 4(b)(2) of the Act and E.O. 12866. This draft economic analysis will provide the required factual basis for the RFA finding. Upon completion of the draft economic analysis, we will announce availability of the draft economic analysis of the proposed designation in the **Federal Register** and reopen the public comment period for the proposed designation. We will include with this announcement, as appropriate, an initial regulatory flexibility analysis or a certification that the rule will not have a significant economic impact on a substantial number of small entities accompanied by the factual basis for that determination. We have concluded that deferring the RFA finding until completion of the draft economic analysis is necessary to meet the purposes and requirements of the RFA. Deferring the RFA finding in this manner will ensure that we make a sufficiently informed determination based on adequate economic information and provide the necessary opportunity for public comment.

Energy Supply, Distribution, or Use

On May 18, 2001, the President issued an Executive Order (E.O. 13211; "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use") on regulations that significantly affect energy supply,

and use. E.O. 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. While this proposed rule to designate critical habitat for the Sierra Nevada bighorn sheep is a significant regulatory action under E.O. 12866 in that it may raise novel legal and policy issues, we do not expect it to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment as warranted.

Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(a) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or Tribal governments, or the private sector, and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)-(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or tribal governments" with two exceptions. It excludes "a condition of Federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding," and the State, local, or Tribal governments "lack authority" to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; AFDC work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program."

The designation of critical habitat does not impose a legally binding duty on non-Federal Government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action, may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above onto State governments.

(b) We do not believe that this rule will significantly or uniquely affect small governments because the vast majority of the lands involved in the proposed designation are Federal (e.g., U.S. Forest Service, National Park Service, and Bureau of Land Management). As such, a Small Government Agency Plan is not required. However, as we conduct our economic analysis, we will further evaluate this issue and revise this assessment if appropriate.

Takings

In accordance with E.O. 12630 ("Government Actions and Interference with Constitutionally Protected Private Property Rights"), we have analyzed the potential takings implications of designating critical habitat for the Sierra Nevada bighorn sheep in a takings implications assessment. The takings implications assessment concludes that this designation of critical habitat for the Sierra Nevada bighorn sheep does not pose significant takings implications. However, we will, further evaluate this issue as we conduct our economic analysis and review and revise this assessment as warranted.

Federalism

In accordance with E.O. 13132 (Federalism), this rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation

with appropriate State resource agencies in California. The designation of critical habitat in areas currently occupied by the Sierra Nevada bighorn sheep imposes no additional restrictions to those currently in place and, therefore, has little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments in that the areas that contain the features essential to the conservation of the subspecies are more clearly defined, and the primary constituent elements of the habitat necessary to the conservation of the subspecies are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

Civil Justice Reform

In accordance with E.O. 12988 (Civil Justice Reform), the Office of the Solicitor has determined that the rule does not unduly burden the judicial system and that it meets the requirements of sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. This proposed rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs of the Sierra Nevada bighorn sheep.

Paperwork Reduction Act of 1995

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (NEPA)

It is our position that, outside the jurisdiction of the Circuit Court of the United States for the Tenth Circuit, we do not need to prepare environmental analyses as defined by the NEPA (42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983

(48 FR 49244). This assertion was upheld by the Circuit Court of the United States for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)).

Government-to-Government Relationship with Tribes

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations with Native American Tribal Governments" (59 FR 22951), E.O. 13175, and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act," we readily acknowledge our responsibilities to work directly with tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes. We have determined that there are no tribal lands occupied at the time of listing that contain the features essential for the conservation, and no tribal lands that are essential for the conservation of the Sierra Nevada bighorn sheep. Therefore, we have not proposed designation of critical habitat for the Sierra Nevada bighorn sheep on Tribal lands.

References Cited

A complete list of all references cited in this rulemaking is available upon request from the Field Supervisor, Nevada Fish and Wildlife Office (see **ADDRESSES** section).

Author(s)

The primary authors of this package are staff from the Nevada Fish and Wildlife and the Ventura Fish and Wildlife Offices.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

2. In § 17.11(h), revise the entry for “Sheep, Sierra Nevada bighorn” under “MAMMALS” in the List of Endangered and Threatened Wildlife to read as follows:

§ 17.11 Endangered and threatened wildlife.
 * * * * *
 (h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
MAMMALS							
*	*	*	*	*	*	*	*
Sheep, Sierra Nevada bighorn.	<i>Ovis canadensis sierrae</i> .	U.S.A. (western States), Canada, Mexico (north).	U.S.A. (CA)—Sierra Nevada.	E	660E, 675	17.95(a)	NA
*	*	*	*	*	*	*	*

3. In § 17.95(a), add an entry for “Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*)” in the same alphabetical order in which the subspecies appears in the table in § 17.11(h) to read as follows:

§ 17.95 Critical habitat—fish and wildlife.

(a) Mammals.

* * * * *

Sierra Nevada Bighorn Sheep (*Ovis Canadensis Sierrae*)

(1) Critical habitat units are depicted for Mono, Fresno, Inyo, Tulare, and Tuolumne counties, California, on the maps below.

(2) The primary constituent elements of critical habitat for the Sierra Nevada bighorn sheep are the habitat components that provide:

(i) Non-forested habitats or forest openings within the Sierra Nevada from 4,000 ft (1,219 m) to 14,500 ft (4,420 m) in elevation with steep (greater than or

equal to 60 percent slope), rocky slopes that provide for foraging, mating, lambing, predator avoidance, and bedding and allow for seasonal elevational movements between these areas.

(ii) Presence of a variety of forage plants as indicated by the presence of grasses (e.g., *Achnanthera* spp.; *Elymus* spp.) and browse (e.g., *Ribes* spp.; *Artemisia* spp., *Purshia* spp.) in winter, and grasses, browse, sedges (e.g., *Carex* spp.) and forbs (e.g., *Eriogonum* spp.) in summer.

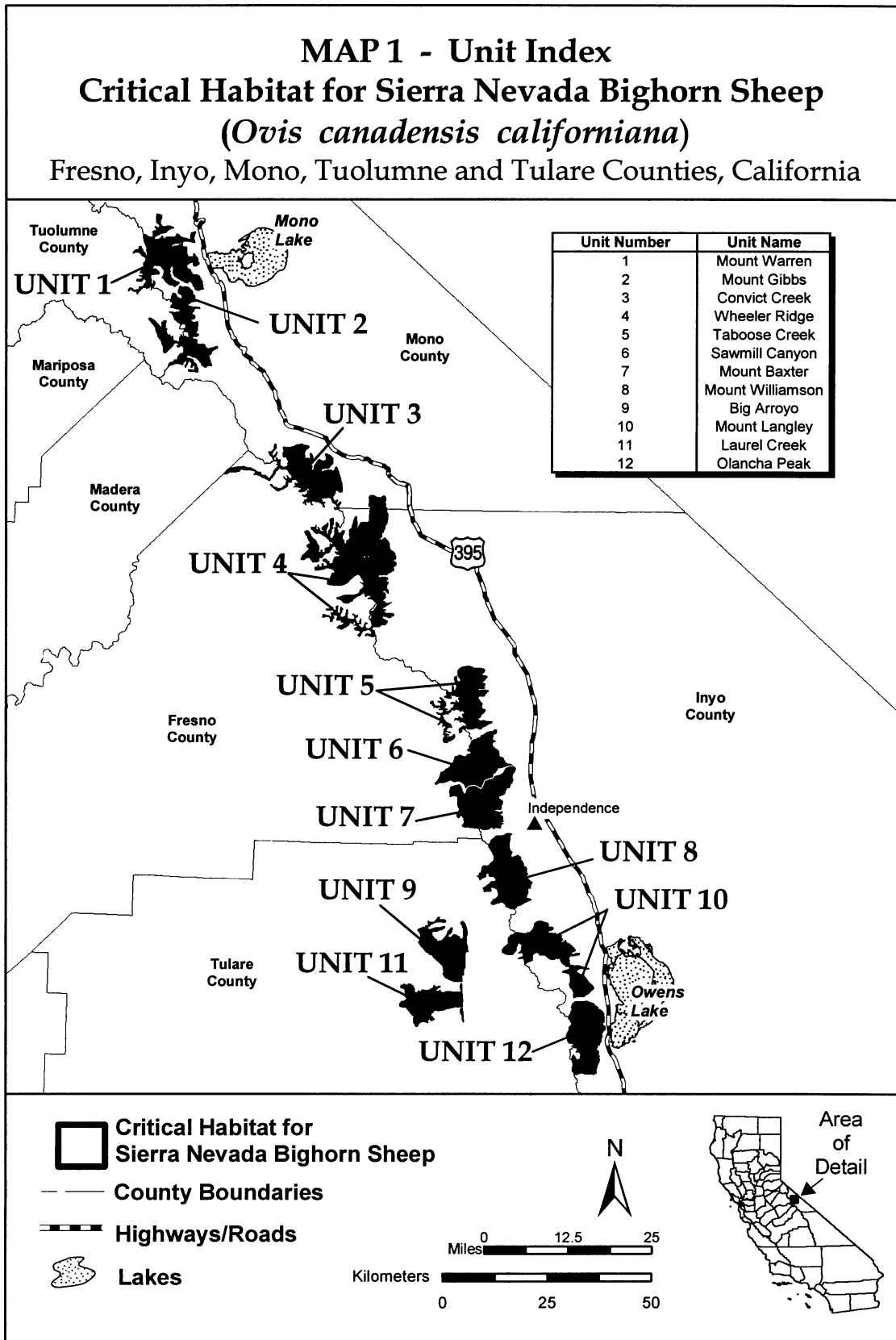
(iii) Presence of granite rock outcroppings containing minerals such as sodium, calcium, iron, and phosphorus that could be used as salt licks/mineral licks in order to meet nutritional needs.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, airports, roads, and other paved areas) and the land on which they

are located existing on the effective date of this rule and not containing one or more of the primary constituent elements.

(4) Critical Habitat Map Units—Boundaries of proposed critical habitat were derived from Sierra Nevada Bighorn Sheep Herd Units developed by the California Department of Fish and Game for the final Sierra Nevada Bighorn Sheep (SNBS) recovery plan. The proposed critical habitat unit boundaries differ from SNBS Herd Unit polygons by the removal of developed areas and private parcels that are unlikely to contain the primary constituent elements. The data were projected to Universal Transverse Mercator (UTM), zone 11, on the North American Datum of 1983.

(5) Note: Index map of Sierra Nevada bighorn sheep critical habitat (Map 1) follows:



BILLING CODE 4310-55-P

(6) Unit 1 (Mount Warren); Mono and Tuolumne Counties, California.

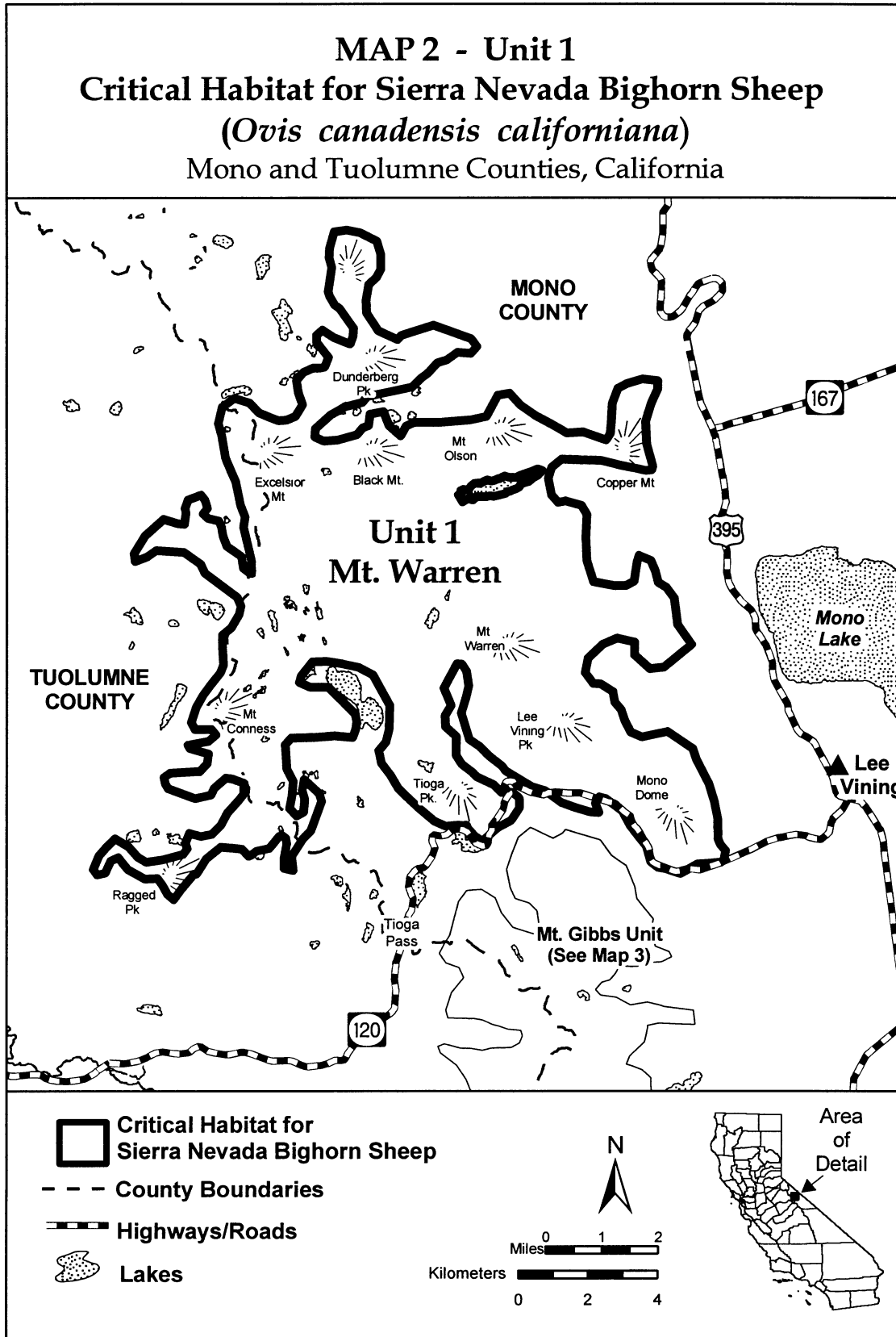
(i) From USGS 1:24,000 scale quadrangles Dunderberg Peak, Lundy, Tioga Pass, and Mount Dana. Land bounded by the following UTM zone 11

NAD83 coordinates (E, N): 300786, 4215918; 301348, 4215650; 301467, 4215784; 302384, 4216077; 303459, 4215689; 303626, 4215452; 303452,

4211739; 305477, 4211807; 305515,
4211863; 305405, 4211903; 305374,

4211907; 305176, 4211813; 305029,
4211770; returning to 304870, 4211718.

(ii) Note: Map of Unit 1 Mount
Warren for Sierra Nevada bighorn sheep
(Map 2) follows:



(7) Unit 2 (Mount Gibbs); Mono and Tuolumne Counties, California.

(i) From USGS 1:24,000 scale quadrangles Mount Dana, Vogelsang Peak, Kiop Peak, and June Lake. Land bounded by the following UTM zone 11 NAD83 coordinates (E, N): 305185, 4201586; 305855, 4201263; 306124, 4201406; 306203, 4201516; 306615, 4201390; 307214, 4201220; 307539, 4200758; 307946, 4200481; 308191, 4199870; 308255, 4199529; 308437, 4199297; 308728, 4198949; 308679, 4198612; 308778, 4198157; 309188, 4197993; 309259, 4197840; 308990, 4197698; 308498, 4197676; 308268, 4197570; 308079, 4197576; 307891, 4197582; 307737, 4197512; 307657, 4197364; 307500, 4197181; 307271, 4197113; 307075, 4196893; 307221, 4196737; 307673, 4196685; 308081, 4196446; 308575, 4196543; 308912, 4196457; 309062, 4196415; 309890, 4196313; 309934, 4195897; 309443, 4195913; 309141, 4195923; 308877, 4195931; 308572, 4195866; 308570, 4195790; 308525, 4195566; 308481, 4195379; 308053, 4194978; 307970, 4194755; 308120, 4194712; 308418, 4194590; 308675, 4194356; 308668, 4194130; 308697, 4193865; 308613, 4193604; 308382, 4193461; 308112, 4193281; 307734, 4193293; 307728, 4193105; 307761, 4192953; 308063, 4192944; 308472, 4192742; 308775, 4192770; 308930, 4192878; 309271, 4192905; 309416, 4192712; 309403, 4192298; 309382, 4191659; 309372, 4191358; 309323, 4190983; 309238, 4190684; 309151, 4190348; 308920, 4190204; 308879, 4190093; 309026, 4189975; 309327, 4189928; 309478, 4189923; 309626, 4189843; 309582, 4189656; 309389, 4189511; 309271, 4189365; 309114, 4189181; 308699, 4189195; 308470, 4189127; 308167, 4189099; 308163, 4188986; 308347, 4188829; 308683, 4188705; 308907, 4188623; 309244, 4188537; 309241, 4188424; 309232, 4188161; 309187, 4187936; 309219, 4187747; 309325, 4187517; 309475, 4187475; 309740, 4187504; 309966, 4187459; 310116, 4187454; 310418, 4187445; 310796, 4187433; 310981, 4187314; 311089, 4187160; 311233, 4186929; 311450, 4186621; 311820, 4186383; 312166, 4186560; 312582, 4186585; 312850, 4186689; 313267, 4186713; 313537, 4186893; 313956, 4186993; 314142, 4186911; 314210, 4186683; 313896, 4186317; 313515, 4186216; 313165, 4185888; 312814, 4185560; 312729, 4185262; 312376, 4184859; 312069, 4184718; 312061, 4184454; 312163, 4184112; 312082, 4183926; 312340, 4183730; 312407, 4183464; 312433, 4183087; 312500, 4182821; 312680,

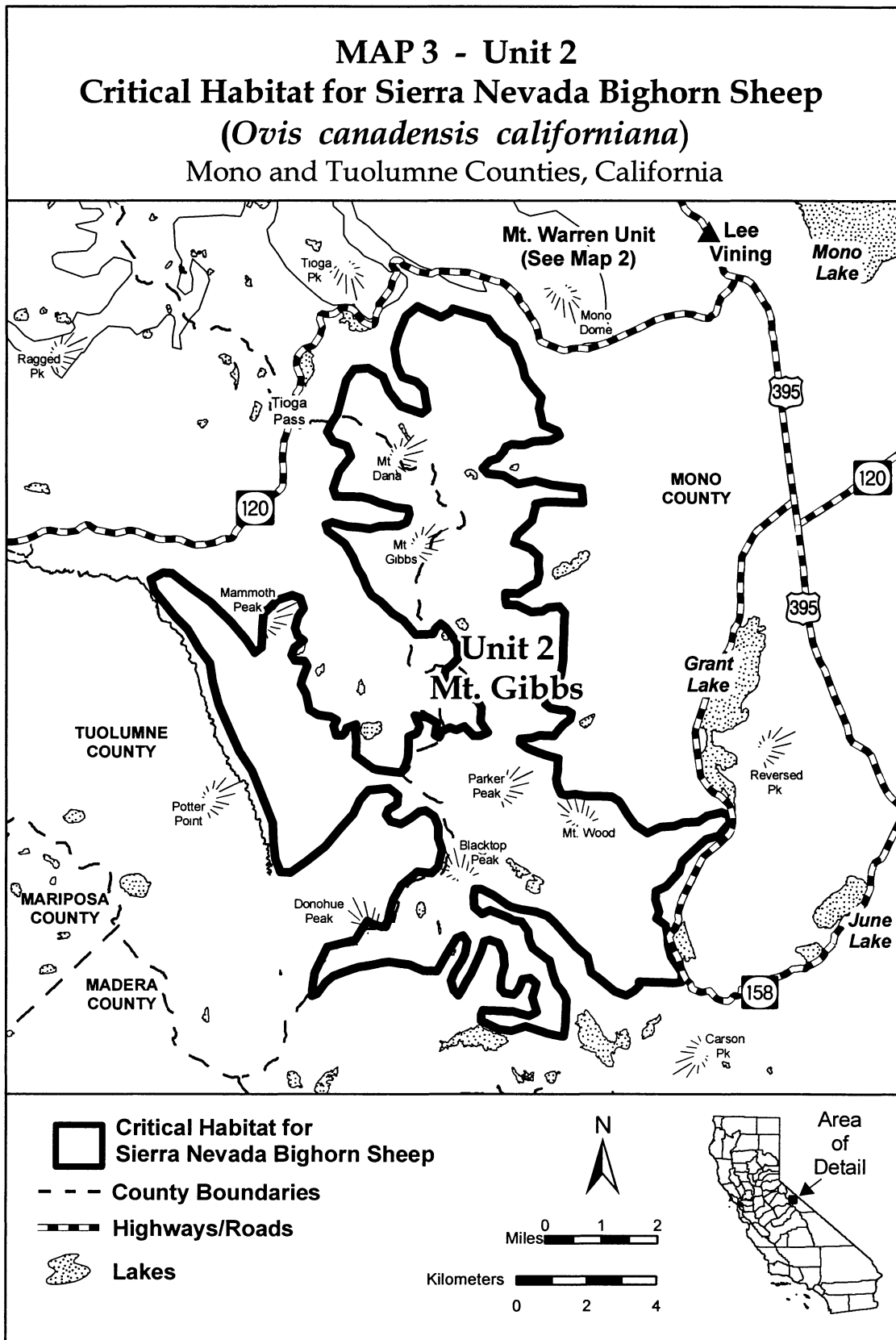
4182551; 312860, 4182282; 312892, 4182093; 312627, 4182063; 312476, 4182068; 312249, 4182075; 312208, 4182071; 311998, 4182077; 311586, 4182088; 311587, 4181967; 311448, 4181837; 311217, 4181694; 310862, 4181818; 310494, 4182132; 310199, 4182367; 310100, 4182822; 309769, 4183096; 309149, 4183794; 308929, 4183989; 308630, 4184112; 308254, 4184162; 307917, 4184248; 307768, 4184328; 307399, 4184603; 307064, 4184765; 306876, 4184771; 306831, 4184546; 306859, 4184244; 307079, 4184049; 307309, 4184154; 307832, 4183949; 307980, 4183869; 308206, 4183824; 308386, 4183555; 308415, 4183290; 308521, 4183061; 308890, 4182785; 309001, 4182707; 309101, 4182289; 309206, 4182022; 309387, 4181790; 309493, 4181561; 309480, 4181147; 309469, 4180808; 309422, 4180509; 309346, 4180511; 308934, 4180599; 308710, 4180682; 308336, 4180807; 307916, 4180670; 307577, 4180718; 307056, 4180961; 307062, 4181149; 307103, 4181261; 307594, 4181245; 307821, 4181238; 307972, 4181233; 308421, 4181105; 308651, 4181211; 308583, 4181439; 308513, 4181630; 308597, 4181891; 308640, 4182040; 308456, 4182197; 308228, 4182166; 308186, 4182017; 308104, 4181831; 307987, 4181722; 307724, 4181768; 307615, 4181885; 307621, 4182073; 307627, 4182261; 307712, 4182559; 307685, 4182899; 307543, 4183205; 307282, 4183289; 307129, 4183256; 307044, 4182957; 306921, 4182660; 306760, 4182326; 306600, 4182068; 306519, 4181882; 306400, 4181697; 306253, 4181853; 306186, 4182118; 306269, 4182342; 306507, 4182711; 306589, 4182897; 306638, 4183234; 306530, 4183426; 306339, 4183357; 306140, 4183024; 306019, 4182802; 305780, 4182395; 305402, 4182407; 304992, 4182571; 304691, 4182618; 304390, 4182666; 304162, 4182635; 303858, 4182570; 303478, 4182506; 303058, 4182369; 302790, 4182265; 302558, 4182084; 302321, 4181752; 302167, 4181682; 302174, 4181908; 302245, 4182357; 302609, 4183099; 303409, 4183300; 303569, 4183558; 303767, 4183853; 303915, 4183773; 304140, 4183691; 304291, 4183686; 304371, 4183834; 304419, 4184171; 304505, 4184470; 304744, 4184876; 305210, 4185276; 305624, 4185225; 305819, 4185407; 305910, 4185894; 305808, 4186236; 305819, 4186575; 305677, 4186881; 305456, 4187038; 305266, 4187007; 305033, 4186826; 304725, 4186647; 304426, 4186732; 304291, 4186912; 304361, 4187073; 304630, 4187215; 304639, 4187479; 304380, 4187675; 303774,

4187619; 303538, 4187326; 303336, 4186918; 302983, 4186515; 302551, 4186001; 302008, 4185567; 301544, 4185242; 301242, 4185252; 301103, 4185633; 301045, 4186162; 301023, 4186653; 300708, 4187454; 300429, 4188178; 300069, 4188717; 299821, 4189253; 299469, 4190055; 299301, 4190701; 299206, 4191269; 298879, 4191693; 298557, 4192269; 298227, 4192581; 297610, 4193354; 297507, 4193696; 297853, 4193873; 298117, 4193865; 298670, 4193433; 299225, 4193038; 299810, 4192455; 300248, 4191951; 300500, 4191566; 300693, 4191711; 300702, 4191974; 300710, 4192237; 300763, 4192688; 301153, 4193090; 301573, 4193227; 301797, 4193144; 301901, 4192840; 301743, 4192619; 301656, 4192283; 301725, 4192054; 301910, 4191935; 301638, 4191718; 301556, 4191495; 301664, 4191341; 301328, 4191332; 301999, 4191179; 301875, 4190844; 301831, 4190657; 301974, 4190389; 302007, 4190237; 302072, 4189934; 302332, 4189775; 302708, 4189725; 302857, 4189645; 302775, 4189459; 302842, 4189194; 303031, 4189188; 303109, 4189260; 303151, 4189410; 303419, 4189514; 303412, 4189288; 303441, 4189024; 303428, 4188610; 303908, 4188255; 304058, 4188213; 304396, 4188165; 304735, 4188116; 304855, 4188338; 304939, 4188599; 304950, 4188938; 304957, 4189164; 305187, 4189269; 305269, 4189455; 305127, 4189761; 305504, 4189711; 305763, 4189552; 305714, 4189215; 305825, 4189136; 305907, 4189322; 306137, 4189427; 306323, 4189346; 306553, 4189452; 306809, 4189180; 306998, 4189174; 307228, 4189279; 307030, 4189587; 307033, 4189700; 307043, 4190001; 306899, 4190231; 306523, 4190281; 306299, 4190364; 306043, 4190635; 305976, 4190901; 306020, 4191088; 306175, 4191196; 306371, 4191416; 306346, 4191831; 306166, 4192101; 306021, 4192293; 305873, 4192411; 305718, 4192266; 305637, 4192117; 305145, 4192096; 304781, 4192521; 304448, 4192720; 304155, 4193031; 303859, 4193229; 303716, 4193460; 303612, 4193764; 303468, 4193995; 303328, 4194338; 303076, 4194723; 302596, 4195078; 302527, 4195268; 302718, 4195337; 303205, 4195209; 303469, 4195200; 303808, 4195152; 304074, 4195219; 304642, 4195238; 304872, 4195344; 304913, 4195455; 304954, 4195567; 304921, 4195719; 304545, 4195768; 304283, 4195852; 304096, 4195896; 303835, 4196017; 303572, 4196063; 302817, 4196087; 302749, 4196316; 302916, 4196800; 303270, 4197241; 303129, 4197546; 302755, 4197671; 302575,

4197941; 302696, 4198201; 302856,
4198459; 302985, 4198945; 303114,
4199430; 303351, 4199762; 303767,
4199786; 304175, 4199547; 304351,
4199127; 304677, 4198702; 305313,

4198494; 305467, 4198602; 305372,
4199170; 305153, 4199403; 304741,
4199529; 304600, 4199835; 304504,
4200365; 304630, 4200775; 304836,
4201296; returning to 305185, 4201586.

(ii) Note: Map of Unit 2 (Mount Gibbs)
for Sierra Nevada bighorn sheep (Map 3)
follows:



(8) Unit 3 (Convict Creek); Fresno and Mono Counties, California.

(i) From USGS 1:24,000 scale quadrangles Crystal Crag, Bloody

Mountain, Convict Lake, Graveyard Peak, and Mount Abbot. Land bounded by the following UTM zone 11 NAD83 coordinates (E, N): 327481, 4161516;

327397, 4161255; 327279, 4161108; 327082, 4160851; 327076, 4160663; 327184, 4160508; 327409, 4160464; 327720, 4160717; 327917, 4160975;

328080, 4161346; 328312, 4161527;
328424, 4161486; 328373, 4161073;
328322, 4160660; 328009, 4160294;
327814, 4160112; 327619, 4159930;
327573, 4159668; 327755, 4159436;
327980, 4159391; 328058, 4159464;
328100, 4159613; 328112, 4159989;
328455, 4160091; 328333, 4159794;
328366, 4159642; 328515, 4159600;
329004, 4159509; 329304, 4159462;
329223, 4159276; 329061, 4158942;
329089, 4158640; 329077, 4158264;
329260, 4158070; 329631, 4157870;
329891, 4157711; 330272, 4157812;
330655, 4157988; 330812, 4158171;
330677, 4158665; 330869, 4158772;
330951, 4158957; 330667, 4159531;
330492, 4159989; 330469, 4160441;
330231, 4160072; 329887, 4159970;
329706, 4160202; 329604, 4160582;
329624, 4161184; 329708, 4161445;
329829, 4161705; 329701, 4162424;
329860, 4162683; 330161, 4162636;
330229, 4162605; 330305, 4162536;
330367, 4162498; 330436, 4162454;
330524, 4162442; 330650, 4162448;
330788, 4162473; 330908, 4162473;
331083, 4162492; 331140, 4162504;
331203, 4162517; 331272, 4162523;
331366, 4162555; 331511, 4162561;
331699, 4162599; 331781, 4162643;
331938, 4162661; 332095, 4162680;
332208, 4162712; 332277, 4162768;
332465, 4162862; 332534, 4162913;
332635, 4162969; 332817, 4163076;
333112, 4163170; 333338, 4163252;
333477, 4163271; 333769, 4163236;
333886, 4163345; 333999, 4163342;
334489, 4163289; 334674, 4163170;
334896, 4163012; 335120, 4162930;
335271, 4162925; 335385, 4162959;
335499, 4162993; 335873, 4162868;
335986, 4162864; 336135, 4162784;
336130, 4162634; 336050, 4162486;
335971, 4162375; 335815, 4162230;
335736, 4162119; 335467, 4161977;
335312, 4161869; 335113, 4161536;
335031, 4161351; 334948, 4161090;
334944, 4160977; 334971, 4160637;
335037, 4160334; 335176, 4159953;
335396, 4159757; 335442, 4160020;
335634, 4160089; 335816, 4159895;
336039, 4159775; 336234, 4159957;
336206, 4160259; 336107, 4160714;
336230, 4161011; 336572, 4161076;
336860, 4160652; 337102, 4159929;
337085, 4159402; 336881, 4158919;
336718, 4158548; 336744, 4158170;
336769, 4157793; 336716, 4157305;
336743, 4156965; 336896, 4157036;
337058, 4157370; 337147, 4157781;
337196, 4158156; 337552, 4158634;
337948, 4159224; 338069, 4159446;
338416, 4159661; 338643, 4159692;
339127, 4159450; 339575, 4159285;
339958, 4159462; 340015, 4160062;
339770, 4160673; 339893, 4160970;
340382, 4160917; 340644, 4160833;
340942, 4160711; 341461, 4160393;
341779, 4159705; 341840, 4159251;
341780, 4158537; 341470, 4158284;
340960, 4157697; 340383, 4157377;
339777, 4157321; 339130, 4157191;
338931, 4156858; 339034, 4156553;
339306, 4156771; 339537, 4156914;
340337, 4157115; 340640, 4157143;
341134, 4157240; 341505, 4157040;
341686, 4156770; 341995, 4156987;
342165, 4157584; 342517, 4157949;
342774, 4157715; 342913, 4157334;
343193, 4156647; 343330, 4156191;
343594, 4155015; 343725, 4154371;
343966, 4153647; 343986, 4153082;
344111, 4152249; 343944, 4151765;
343522, 4151553; 343113, 4151754;
342857, 4152026; 342402, 4151965;
342317, 4151666; 342226, 4151180;
342065, 4150883; 341869, 4150664;
341671, 4150369; 341818, 4150251;
341851, 4150099; 341956, 4149833;
342177, 4149637; 342286, 4149521;
342403, 4149630; 342560, 4149813;
342900, 4149803; 343043, 4149572;
342844, 4149239; 342499, 4149100;
342680, 4148830; 342942, 4148747;
343179, 4149078; 343456, 4149484;
343790, 4149285; 343627, 4148913;
343392, 4148657; 343149, 4148138;
343258, 4148021; 343285, 4147681;
343274, 4147305; 343051, 4147425;
342828, 4147545; 342597, 4147402;
342331, 4147373; 342146, 4147492;
341968, 4147836; 341938, 4148063;
342128, 4148095; 342311, 4147938;
342503, 4148008; 342621, 4148154;
342698, 4148227; 342665, 4148379;
342076, 4148850; 341633, 4149165;
341530, 4149507; 341467, 4149886;
340838, 4150320; 340536, 4150330;
340193, 4150228; 339889, 4150162;
339587, 4150171; 339398, 4150177;
339018, 4150114; 338825, 4149970;
338896, 4149817; 339009, 4149813;
339161, 4149846; 339187, 4149469;
339290, 4149164; 339520, 4149270;
339943, 4149482; 339780, 4149111;
339617, 4148739; 339785, 4148094;
339553, 4147913; 339226, 4148338;
339052, 4148795; 338679, 4148958;
338273, 4149234; 338126, 4149389;
337938, 4149395; 337855, 4149172;
337743, 4149213; 337593, 4149256;
337372, 4149413; 337145, 4149421;
336956, 4149427; 336767, 4149395;
336649, 4149248; 336606, 4149099;
336751, 4148906; 336861, 4148789;
337006, 4148597; 336889, 4148487;
336627, 4148571; 336405, 4148729;
336376, 4148993; 336231, 4149186;
335967, 4149194; 335890, 4149159;
335775, 4149088; 335555, 4149321;
335298, 4149555; 335219, 4149444;
335214, 4149294; 335317, 4148952;
335422, 4148685; 335343, 4148574;
335155, 4148618; 334974, 4148849;
334791, 4149044; 334636, 4148935;
334377, 4149094; 334726, 4149385;
334810, 4149646; 335042, 4149826;
335274, 4149970; 335582, 4150148;
335517, 4150489; 335252, 4150460;
334801, 4150550; 334430, 4150750;
334326, 4151054; 334556, 4151160;
334815, 4151001; 335077, 4150917;
335122, 4151142; 335386, 4151134;
335508, 4151393; 335481, 4151733;
335604, 4152030; 335946, 4152095;
335919, 4152435; 335770, 4152515;
335428, 4152450; 335229, 4152118;
334800, 4151717; 334460, 4151690;
334193, 4151623; 333778, 4151637;
333556, 4151794; 333602, 4152057;
333834, 4152200; 334068, 4152456;
333925, 4152686; 333513, 4152813;
333101, 4152939; 332646, 4152878;
332309, 4152964; 332579, 4153144;
332958, 4153169; 332736, 4153327;
332481, 4153636; 332603, 4153896;
332905, 4153886; 333240, 4153725;
333470, 4153831; 333326, 4154061;
332997, 4154411; 332816, 4154642;
332323, 4154583; 331984, 4154631;
331786, 4154336; 331739, 4154036;
331544, 4153854; 331056, 4153945;
330870, 4154064; 330929, 4153535;
330955, 4153158; 330490, 4152796;
330298, 4152689; 329759, 4152367;
329452, 4152226; 328877, 4151981;
328610, 4151876; 328051, 4152120;
327499, 4152590; 327096, 4152979;
326655, 4153370; 326660, 4153520;
326891, 4153664; 327222, 4153389;
327255, 4153238; 327701, 4152997;
328038, 4152911; 328485, 4152709;
328936, 4152619; 329510, 4152865;
329784, 4153157; 330092, 4153336;
330406, 4153702; 330418, 4154079;
330544, 4154489; 330398, 4154644;
330064, 4154843; 329848, 4155189;
329897, 4155526; 330114, 4155218;
330372, 4155021; 330745, 4154859;
330825, 4155007; 330829, 4155120;
330800, 4155422; 330658, 4155690;
330699, 4155802; 330882, 4155608;
331136, 4155298; 331392, 4155027;
331581, 4155021; 331776, 4155203;
331783, 4155428; 331529, 4155775;
331387, 4156044; 331135, 4156428;
331029, 4156658; 330886, 4156926;
330742, 4157156; 330441, 4157204;
330252, 4157172; 329987, 4157180;
329609, 4157155; 329273, 4157278;
329088, 4157397; 328941, 4157553;
328787, 4157445; 328668, 4157260;
328468, 4156927; 328161, 4156787;
328003, 4156566; 327921, 4156342;
327877, 4156155; 327758, 4155971;
327559, 4155676; 327286, 4155383;
327201, 4155085; 327007, 4154940;
326815, 4154833; 326772, 4154684;
326727, 4154460; 326612, 4154388;
326271, 4154361; 326126, 4154554;
325531, 4154874; 325086, 4155114;
324787, 4155237; 324378, 4155438;
324118, 4155560; 323895, 4155680;

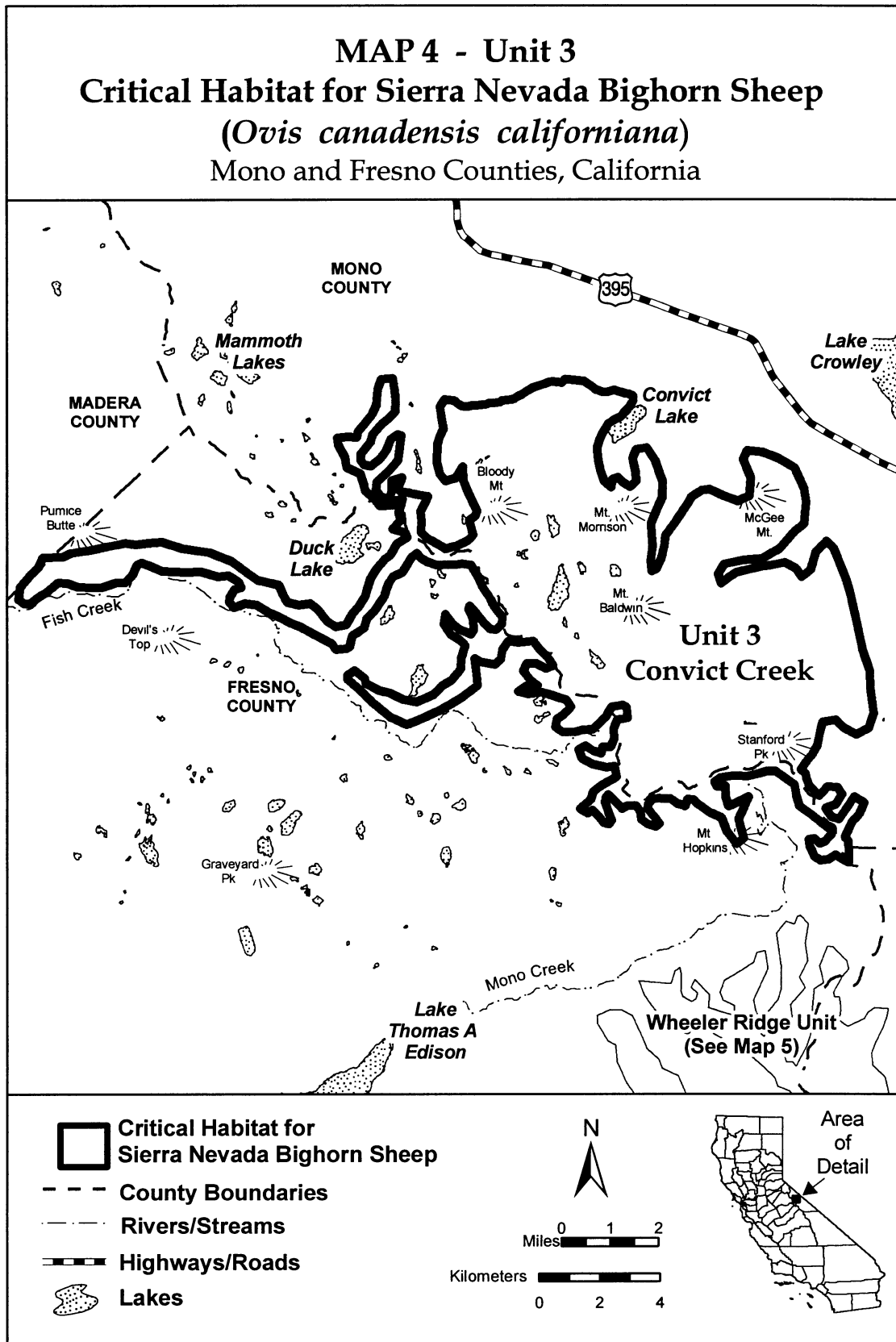
323635, 4155838; 323259, 4155888;
322877, 4155750; 322732, 4155943;
322737, 4156093; 322896, 4156352;
323125, 4156420; 323018, 4156611;
322684, 4156810; 322343, 4156783;
321782, 4156952; 321290, 4156930;
320875, 4156943; 320497, 4156955;
320162, 4157117; 319826, 4157240;
319673, 4157170; 319511, 4156836;
319276, 4156580; 319088, 4156586;
318974, 4156589; 318478, 4156417;
318176, 4156426; 317723, 4156441;
317349, 4156566; 317047, 4156575;
316698, 4156285; 316351, 4156070;
316118, 4155889; 315930, 4155895;
315745, 4156014; 315795, 4156427;
316149, 4156868; 316383, 4157086;
316545, 4157420; 317188, 4157437;

317494, 4157578; 318140, 4157670;
318786, 4157801; 319280, 4157898;
319619, 4157849; 320036, 4157911;
320491, 4157935; 321164, 4157725;
322066, 4157583; 322813, 4157296;
323329, 4156903; 323662, 4156666;
324374, 4156493; 324515, 4156187;
324658, 4155919; 325033, 4155832;
325413, 4155895; 325671, 4155698;
325961, 4155313; 326257, 4155115;
326599, 4155179; 326800, 4155549;
327035, 4155806; 327234, 4156138;
327403, 4156698; 327602, 4157030;
327877, 4157361; 328071, 4157505;
328272, 4157875; 328618, 4158090;
328548, 4158243; 328136, 4158369;
328410, 4158662; 328343, 4158927;
328427, 4159188; 328470, 4159375;

328242, 4159307; 328161, 4159159;
327707, 4159136; 327489, 4159407;
327232, 4159641; 327165, 4159906;
327061, 4160211; 326614, 4160414;
326550, 4160755; 326336, 4161176;
326306, 4161403; 326647, 4161429;
326949, 4161420; 326992, 4161607;
327347, 4162047; 327465, 4162194;
327587, 4162492; 327642, 4163017;
327766, 4163352; 328145, 4163378;
328207, 4162961; 328235, 4162659;
328223, 4162283; 328027, 4162063;
327795, 4161882; 327560, 4161626;
returning to 327481, 4161516.

(ii) Note: Map of Unit 3 (Convict Creek) for Sierra Nevada bighorn sheep (Map 4) follows:

BILLING CODE 4310-55-P



(9) Unit 4 (Wheeler Ridge); Fresno, Inyo and Mono Counties, California.
 (i) From USGS 1:24,000 scale quadrangles Mount Abbot, Mount

Morgan, Mount Hilgard, Mount Tom, Tungsten Hills, Mount Henry, Mount Darwin and Mount Thompson. Land

bounded by the following UTM zone 11 NAD83 coordinates (E, N): 351676, 4150867; 352490, 4150441; 352738,

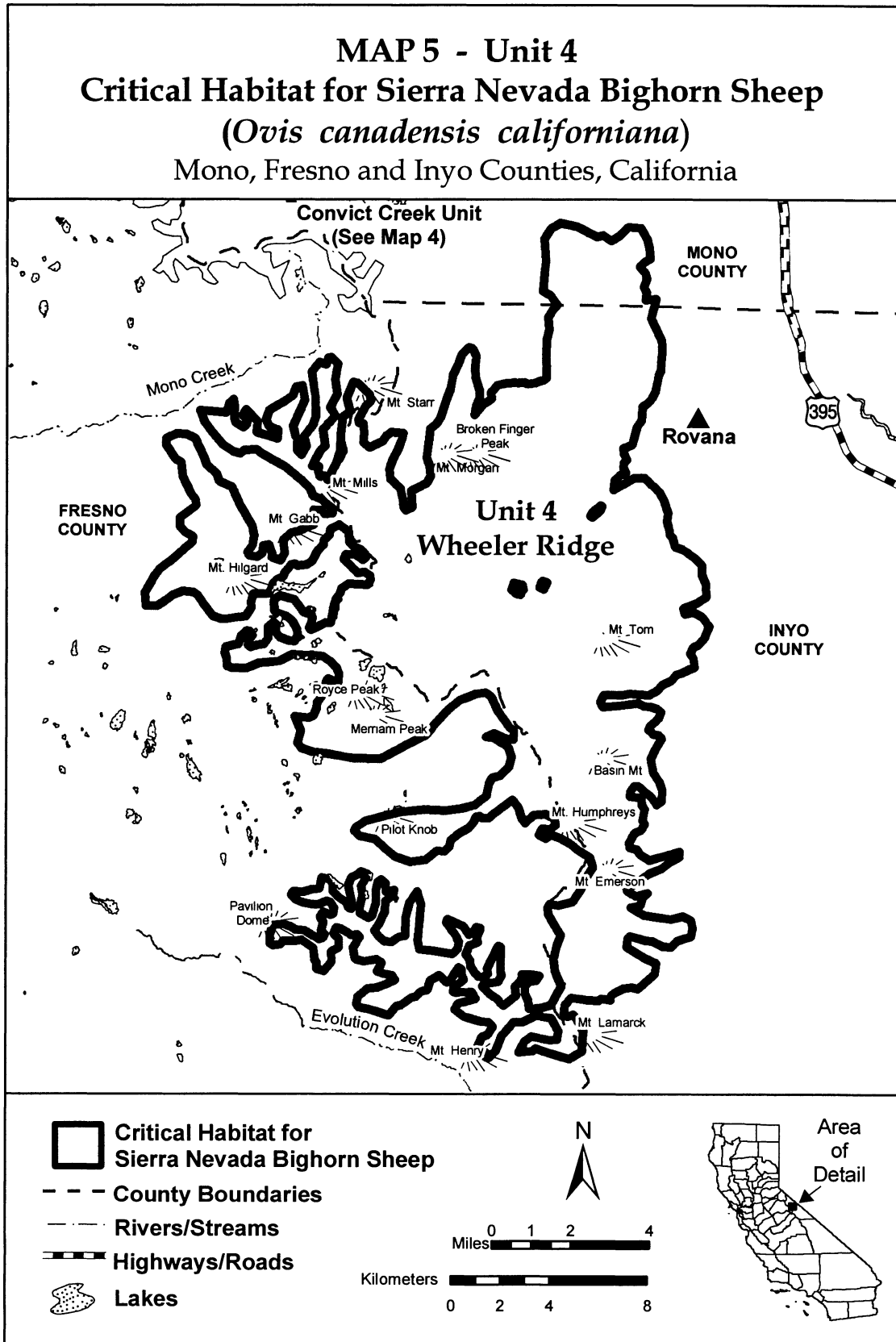
bounded by 352666, 4139452; 352330, 4139197; 352261, 4139018; 352280, 4139004; 352300, 4138988; 352332, 4138964; 352634, 4139235; 352732, 4139417; 352718, 4139424; 352718, 4139425; 352694, 4139437; 352694, 4139437; 352690, 4139439; 352687, 4139441; 352687, 4139441; returning to 352666, 4139452; excluding land bounded by 350254, 4136280; 350216, 4136187; 350216, 4136187; 350178, 4136094; 350363, 4136018; 350402,

4136111; 350402, 4136111; 350440, 4136204; 350478, 4136296; 350305, 4136368; 350300, 4136361; 350295, 4136351; 350293, 4136348; 350287, 4136341; 350283, 4136338; 350280, 4136335; 350276, 4136333; 350276, 4136333; returning to 350254, 4136280; excluding land bounded by 349527, 4136002; 349500, 4136201; 349450, 4136194; 349408, 4136200; 349404, 4136201; 349391, 4136206; 349321, 4136238; 349317, 4136223; 349126,

4136278; 349099, 4136181; 349045, 4135990; 349139, 4135963; 349138, 4135962; 349235, 4135934; 349212, 4135851; 349308, 4135823; 349406, 4135799; 349478, 4135988; 349478, 4135995; returning to 349527, 4136002.

(ii) Note: Map of Unit 4 (Wheeler Ridge) for Sierra Nevada bighorn sheep (Map 5) follows:

BILLING CODE 4310-55-P



(10) Unit 5 (Taboose Creek); Fresno and Inyo Counties, California.
 (i) From USGS 1:24,000 scale quadrangles Coyote Flat, North Palisade,

Split Mountain, Fish Springs, Mount Pinchot, and Aberdeen. Land bounded by the following UTM zone 11 NAD83

coordinates (E, N): 376756, 4109414; 376837, 4109413; 376838, 4109467; 376865, 4109466; 377166, 4109426;

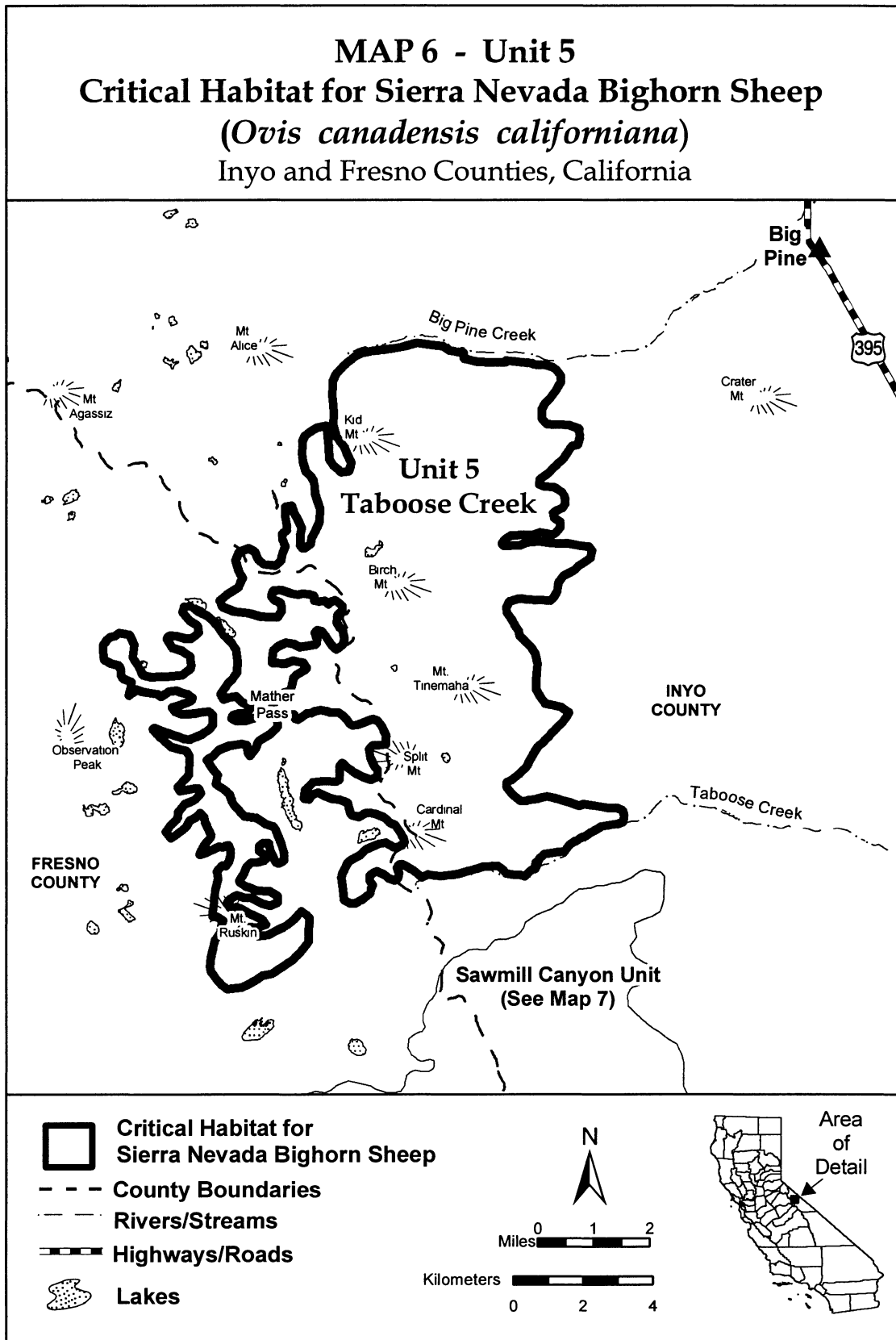
368013, 4097124; 367892, 4097127;
 367710, 4097103; 367467, 4097050;
 367410, 4097173; 367536, 4097319;
 367660, 4097436; 367724, 4097524;
 367728, 4097675; 367734, 4097855;
 367741, 4098066; 367655, 4098219;
 367475, 4098255; 367205, 4098324;
 366941, 4098573; 366794, 4098698;
 366678, 4098853; 366739, 4098881;
 366947, 4098784; 367216, 4098685;
 367456, 4098617; 367575, 4098553;
 367756, 4098548; 367879, 4098604;
 368093, 4098688; 368185, 4098745;
 368340, 4098860; 368404, 4098979;
 368408, 4099099; 368413, 4099250;
 368295, 4099344; 368022, 4099322;
 367900, 4099296; 367718, 4099272;
 367507, 4099278; 367328, 4099344;
 367241, 4099468; 367424, 4099522;
 367668, 4099605; 367791, 4099661;
 367824, 4099750; 367735, 4099813;
 367676, 4099845; 367556, 4099879;
 367347, 4099946; 367135, 4099923;
 367103, 4099894; 366918, 4099779;
 366800, 4099843; 366619, 4099879;
 366379, 4099916; 366200, 4099982;
 366106, 4099895; 365983, 4099809;
 366017, 4099928; 366051, 4100077;
 366055, 4100198; 365817, 4100296;
 365759, 4100388; 365764, 4100538;
 365707, 4100661; 365468, 4100728;
 365289, 4100825; 365262, 4100916;
 365238, 4101097; 365242, 4101248;
 365305, 4101306; 365338, 4101395;
 365461, 4101482; 365583, 4101508;
 365707, 4101595; 365977, 4101556;
 366008, 4101555; 366064, 4101433;
 366149, 4101249; 366112, 4101040;
 366107, 4100889; 366194, 4100766;
 366281, 4100643; 366337, 4100520;
 366394, 4100398; 366634, 4100330;
 366906, 4100352; 367057, 4100347;
 367270, 4100370; 367542, 4100392;
 367636, 4100479; 367759, 4100566;
 367793, 4100685; 367768, 4100837;
 367771, 4100927; 367534, 4101085;
 367235, 4101185; 367092, 4101430;
 367124, 4101490; 367185, 4101518;
 367366, 4101512; 367606, 4101444;
 367787, 4101438; 367910, 4101525;

368004, 4101612; 367978, 4101764;
 367950, 4101825; 367743, 4101952;
 367539, 4102199; 367574, 4102349;
 367786, 4102372; 367993, 4102215;
 368261, 4102086; 368496, 4101868;
 368612, 4101714; 368728, 4101559;
 368932, 4101342; 369076, 4101127;
 369126, 4100794; 369116, 4100463;
 368958, 4100257; 368834, 4100140;
 368738, 4099993; 368643, 4099845;
 368729, 4099692; 368852, 4099748;
 369094, 4099771; 369240, 4099615;
 369508, 4099486; 369412, 4099309;
 369169, 4099286; 368986, 4099232;
 368953, 4099142; 369102, 4099077;
 369344, 4099070; 369771, 4099207;
 369894, 4099263; 369926, 4099323;
 370111, 4099437; 370208, 4099645;
 370427, 4099879; 370519, 4099906;
 370610, 4099934; 370672, 4099992;
 370707, 4100141; 370743, 4100321;
 370868, 4100437; 371083, 4100551;
 371115, 4100610; 371028, 4100734;
 370728, 4100803; 370514, 4100720;
 370122, 4100732; 370126, 4100883;
 370163, 4101092; 370288, 4101209;
 370533, 4101322; 370744, 4101285;
 370922, 4101189; 371195, 4101240;
 371378, 4101265; 371409, 4101294;
 371412, 4101414; 371358, 4101597;
 371421, 4101685; 371541, 4101651;
 371686, 4101466; 371830, 4101251;
 371977, 4101125; 372163, 4101270;
 372198, 4101420; 372147, 4101692;
 372058, 4101755; 371972, 4101909;
 372009, 4102119; 372133, 4102235;
 372138, 4102386; 372050, 4102449;
 371932, 4102543; 371809, 4102486;
 371747, 4102428; 371629, 4102522;
 371477, 4102497; 371327, 4102532;
 371331, 4102652; 371182, 4102717;
 371001, 4102723; 370879, 4102696;
 370699, 4102732; 370400, 4102832;
 370157, 4102810; 370092, 4102661;
 370179, 4102538; 370358, 4102472;
 370384, 4102351; 370381, 4102230;
 370284, 4102052; 370043, 4102060;
 369801, 4102068; 369442, 4102169;
 369050, 4102212; 368692, 4102344;
 368607, 4102527; 368855, 4102730;

369133, 4102902; 369262, 4103169;
 369148, 4103384; 369067, 4103687;
 369165, 4103925; 369441, 4104037;
 369619, 4103941; 369732, 4103697;
 369879, 4103571; 370210, 4103531;
 370366, 4103677; 370400, 4103796;
 370434, 4103915; 370500, 4104094;
 370416, 4104308; 370421, 4104458;
 370544, 4104545; 370549, 4104695;
 370497, 4104968; 370506, 4105239;
 370688, 4105263; 370743, 4105080;
 370857, 4104866; 370970, 4104621;
 370933, 4104412; 370928, 4104261;
 370924, 4104111; 370982, 4104049;
 371073, 4104046; 371227, 4104161;
 371263, 4104341; 371360, 4104519;
 371490, 4104816; 371501, 4105177;
 371446, 4105329; 371364, 4105603;
 371340, 4105815; 371315, 4105966;
 371229, 4106119; 371082, 4106245;
 371001, 4106548; 370978, 4106790;
 370984, 4106971; 370989, 4107121;
 371055, 4107300; 371210, 4107415;
 371395, 4107530; 371668, 4107582;
 371718, 4107249; 371740, 4106977;
 371758, 4106615; 371873, 4106430;
 372109, 4106242; 372322, 4106266;
 372390, 4106505; 372276, 4106749;
 372192, 4106963; 371960, 4107271;
 371880, 4107605; 371891, 4107936;
 371868, 4108178; 371847, 4108450;
 371856, 4108751; 371860, 4108871;
 371957, 4109079; 372145, 4109284;
 372207, 4109342; 372301, 4109429;
 372518, 4109603; 372702, 4109688;
 373006, 4109738; 373158, 4109764;
 373430, 4109785; 373856, 4109862;
 374282, 4109969; 374583, 4109930;
 375005, 4109886; 375212, 4109759;
 375603, 4109686; 375630, 4109681;
 375627, 4109522; 376032, 4109425;
 376434, 4109419; 376474, 4109418;
 376515, 4109417; 376595, 4109416;
 376635, 4109416; 376676, 4109415;
 376716, 4109414; returning to 376756,
 4109414.

(ii) *Note:* Map of Unit 5 (Taboose Creek) for Sierra Nevada bighorn sheep (Map 6) follows:

BILLING CODE 4310-55-P



(11) Unit 6 (Sawmill Canyon); Fresno and Inyo Counties, California.
 (i) From USGS 1:24,000 scale quadrangles Mount Pinchot, Aberdeen,

Mount Clarence King and Kearsarge Peak. Land bounded by the following UTM zone 11 NAD83 coordinates (E, N):

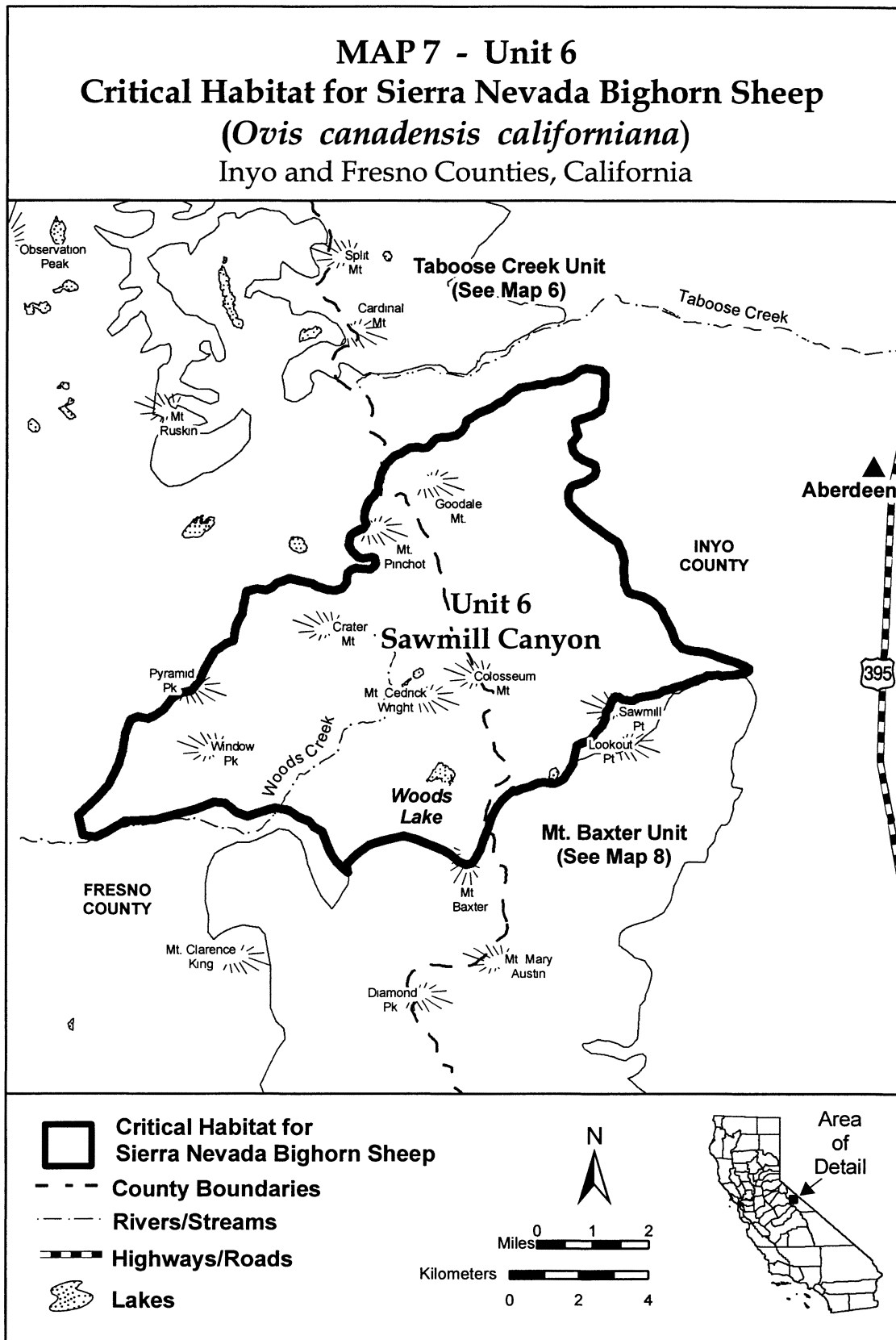
380512, 4083384; 380416, 4083207; 380321, 4083059; 380256, 4082940; 380133, 4082854; 379980, 4082799;

379859, 4082802; 379709, 4082837;
379527, 4082813; 379374, 4082757;
379265, 4082696; 379160, 4082674;
379038, 4082647; 378867, 4082568;
378795, 4082595; 378516, 4082363;
378327, 4082128; 378166, 4081831;
378065, 4081503; 377933, 4081146;
377834, 4080878; 377738, 4080700;
377610, 4080493; 377442, 4080457;
377339, 4080502; 377219, 4080536;
376984, 4080754; 376746, 4080882;
376628, 4080946; 376239, 4081079;
376030, 4081176; 375641, 4081278;
375519, 4081252; 375032, 4081147;
374788, 4081064; 374635, 4081009;
374295, 4080749; 373983, 4080457;
374028, 4080221; 373860, 4080371;
373684, 4080557; 373540, 4080772;
373455, 4080956; 373288, 4081413;
373050, 4081541; 372934, 4081695;
372606, 4081826; 372340, 4082015;
372244, 4082045; 372121, 4082062;
371940, 4082079; 371706, 4082035;
371156, 4081842; 370857, 4081941;
370503, 4082224; 370199, 4082263;
369698, 4082060; 368468, 4081749;
367602, 4081695; 367089, 4081384;
366778, 4081235; 366399, 4081303;
366264, 4081871; 366778, 4082344;
367143, 4082763; 367427, 4083358;
367548, 4083750; 367616, 4084237;
367778, 4084629; 367995, 4084724;
368279, 4084669; 368495, 4084764;
368738, 4084940; 368968, 4085237;
369198, 4085400; 369536, 4085481;
369769, 4085771; 369933, 4086158;
370188, 4086602; 370528, 4086832;
370742, 4086916; 370782, 4087216;
370816, 4087335; 370850, 4087454;
370978, 4087691; 371016, 4087931;
371050, 4088051; 371089, 4088321;
371394, 4088401; 371664, 4088363;
371848, 4088447; 371973, 4088564;
372034, 4088592; 372340, 4088703;
372640, 4088633; 372970, 4088562;

373118, 4088467; 373447, 4088367;
373629, 4088361; 373659, 4088360;
373750, 4088387; 373842, 4088414;
373968, 4088591; 373971, 4088682;
374007, 4088861; 374100, 4088949;
374253, 4089004; 374464, 4088967;
374645, 4088962; 374768, 4089048;
374801, 4089137; 374776, 4089289;
374686, 4089322; 374443, 4089269;
374323, 4089303; 374265, 4089365;
374147, 4089459; 374089, 4089551;
374033, 4089674; 374071, 4089913;
374164, 4090001; 374256, 4090058;
374379, 4090115; 374439, 4090113;
374535, 4090260; 374479, 4090413;
374486, 4090623; 374585, 4090891;
374648, 4090980; 374742, 4091067;
374806, 4091186; 374869, 4091274;
374873, 4091394; 374944, 4091724;
375104, 4092020; 375353, 4092253;
375506, 4092308; 375784, 4092480;
376026, 4092503; 376146, 4092469;
376298, 4092494; 376391, 4092582;
376454, 4092670; 376548, 4092757;
376700, 4092783; 376851, 4092778;
377125, 4092860; 377249, 4092946;
377375, 4093123; 377410, 4093272;
377564, 4093358; 377719, 4093474;
378147, 4093641; 378302, 4093756;
378486, 4093841; 378704, 4094045;
378951, 4094218; 379315, 4094267;
379468, 4094322; 379649, 4094316;
379894, 4094399; 380136, 4094421;
380289, 4094477; 380473, 4094561;
380690, 4094735; 380873, 4094790;
381053, 4094754; 381294, 4094716;
381411, 4094592; 381403, 4094351;
381394, 4094081; 381389, 4093900;
381322, 4093691; 381288, 4093572;
381041, 4093429; 380797, 4093346;
380552, 4093234; 380575, 4093022;
380630, 4092839; 380441, 4092604;
380495, 4092392; 380611, 4092238;
380818, 4092111; 380998, 4092045;
381116, 4091981; 381142, 4091829;

381107, 4091680; 380983, 4091593;
380798, 4091479; 380494, 4091398;
380431, 4091340; 380366, 4091191;
380361, 4091041; 380386, 4090859;
380532, 4090704; 380796, 4090454;
381061, 4090235; 381269, 4090108;
381504, 4089920; 381771, 4089761;
381913, 4089455; 381966, 4089213;
381956, 4088912; 381975, 4088550;
382088, 4088305; 382178, 4088272;
382237, 4088240; 382297, 4088238;
382537, 4088170; 382775, 4088042;
383039, 4087793; 383123, 4087580;
383323, 4087242; 383434, 4086907;
383638, 4086690; 383908, 4086621;
384089, 4086615; 384330, 4086578;
384450, 4086544; 384718, 4086445;
384987, 4086346; 385137, 4086311;
385317, 4086245; 385466, 4086180;
385554, 4086117; 385552, 4086057;
385399, 4085971; 385278, 4085975;
385186, 4085948; 385065, 4085922;
384944, 4085926; 384792, 4085900;
384672, 4085934; 384490, 4085910;
384369, 4085914; 384277, 4085856;
384185, 4085829; 384094, 4085802;
383696, 4085634; 383574, 4085607;
383452, 4085581; 383330, 4085525;
383178, 4085499; 383086, 4085472;
382963, 4085386; 382749, 4085332;
382537, 4085309; 382385, 4085283;
382231, 4085198; 381960, 4085206;
381842, 4085300; 381721, 4085304;
381628, 4085217; 381595, 4085127;
381529, 4084949; 381466, 4084890;
381429, 4084681; 381331, 4084443;
381176, 4084297; 381080, 4084150;
381016, 4084031; 380956, 4084033;
380773, 4083979; 380619, 4083893;
380582, 4083683; 380513, 4083414;
returning to 380512, 4083384.

(ii) Note: Map of Unit 6 (Sawmill Canyon) for Sierra Nevada bighorn sheep (Map 7) follows:



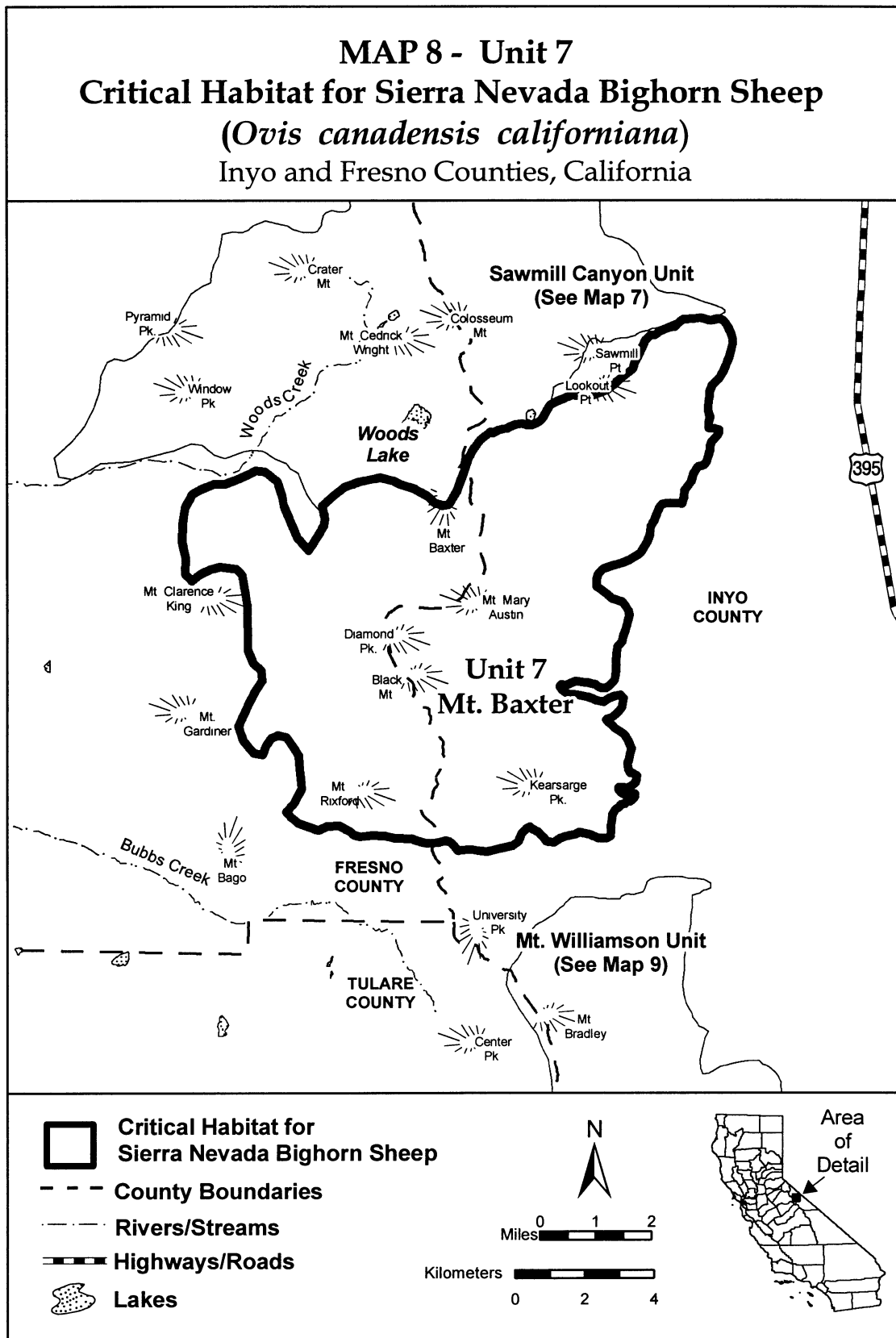
(12) Unit 7 (Mount Baxter); Fresno and Inyo Counties, California.
(i) From USGS 1:24,000 scale quadrangles Aberdeen, Mount Clarence

King and Kearsarge Peak. Land bounded by the following UTM zone 11 NAD83 coordinates (E, N): 374028, 4080221; 373983, 4080457; 374295, 4080749;

374635, 4081009; 374788, 4081064; 375032, 4081147; 375519, 4081252; 375641, 4081278; 376030, 4081176; 376239, 4081079; 376628, 4080946;

376746, 4080882; 376984, 4080754;
 377219, 4080536; 377339, 4080502;
 377442, 4080457; 377610, 4080493;
 377738, 4080700; 377834, 4080878;
 377933, 4081146; 378065, 4081503;
 378166, 4081831; 378327, 4082128;
 378516, 4082363; 378795, 4082595;
 378867, 4082568; 379038, 4082647;
 379160, 4082674; 379265, 4082696;
 379374, 4082757; 379527, 4082813;
 379709, 4082837; 379859, 4082802;
 379980, 4082799; 380133, 4082854;
 380256, 4082940; 380321, 4083059;
 380416, 4083207; 380512, 4083384;
 380727, 4083498; 380880, 4083553;
 381125, 4083666; 381307, 4083660;
 381760, 4083676; 382157, 4083814;
 382374, 4083988; 382561, 4084163;
 382902, 4084423; 382969, 4084632;
 383097, 4084869; 383261, 4085256;
 383416, 4085401; 383537, 4085398;
 383692, 4085513; 383967, 4085625;
 384119, 4085650; 384182, 4085709;
 384213, 4085738; 384244, 4085767;
 384367, 4085853; 384670, 4085874;
 384852, 4085898; 385092, 4085830;
 385213, 4085827; 385396, 4085881;
 385515, 4085817; 385631, 4085663;
 385715, 4085479; 385770, 4085297;
 385765, 4085147; 385729, 4084967;
 385662, 4084758; 385564, 4084520;
 385498, 4084342; 385402, 4084164;
 385277, 4084047; 385184, 4083960;
 385117, 4083751; 385113, 4083631;
 385078, 4083481; 385073, 4083331;
 385069, 4083210; 385124, 4083028;
 385088, 4082848; 385084, 4082728;
 385114, 4082697; 385234, 4082693;
 385384, 4082658; 385383, 4082598;
 385318, 4082480; 385255, 4082391;
 385162, 4082304; 385128, 4082184;
 385124, 4082064; 385023, 4081736;
 384960, 4081647; 384898, 4081619;
 384777, 4081593; 384649, 4081386;
 384581, 4081147; 384392, 4080912;
 384386, 4080702; 384320, 4080523;
 384199, 4080527; 384108, 4080530;
 383867, 4080537; 383745, 4080511;
 383682, 4080423; 383584, 4080185;
 383519, 4080036; 383422, 4079858;
 383385, 4079619; 383318, 4079410;
 383126, 4079084; 382787, 4078884;
 382573, 4078801; 382268, 4078720;
 382054, 4078636; 381899, 4078491;
 381864, 4078341; 381857, 4078130;
 382123, 4077941; 382299, 4077785;
 382598, 4077685; 382685, 4077562;
 382772, 4077439; 382798, 4077317;
 382762, 4077138; 382693, 4076869;
 382628, 4076720; 382592, 4076541;
 382467, 4076394; 382431, 4076214;
 382422, 4075944; 382420, 4075853;
 382415, 4075703; 382411, 4075582;
 382376, 4075433; 382219, 4075257;
 382127, 4075200; 382006, 4075204;
 381917, 4075237; 381828, 4075300;
 381588, 4075367; 381498, 4075370;
 381257, 4075408; 380982, 4075296;
 380831, 4075301; 380799, 4075242;
 380856, 4075149; 381004, 4075054;
 381064, 4075022; 381215, 4075018;
 381455, 4074980; 381605, 4074945;
 381725, 4074911; 381844, 4074847;
 382054, 4074810; 382239, 4074925;
 382392, 4074981; 382544, 4075006;
 382632, 4074913; 382593, 4074643;
 382436, 4074467; 382281, 4074351;
 382129, 4074296; 382216, 4074203;
 382393, 4074047; 382659, 4073858;
 382774, 4073673; 382858, 4073460;
 382822, 4073280; 382787, 4073131;
 382753, 4073011; 382778, 4072860;
 382835, 4072737; 382895, 4072736;
 383014, 4072672; 383010, 4072551;
 382977, 4072462; 382885, 4072404;
 382761, 4072318; 382640, 4072322;
 382489, 4072327; 382488, 4072266;
 382575, 4072173; 382694, 4072109;
 382968, 4072161; 382965, 4072071;
 382933, 4072011; 382902, 4071982;
 382839, 4071924; 382810, 4071955;
 382750, 4071957; 382686, 4071869;
 382565, 4071842; 382502, 4071754;
 382409, 4071696; 382314, 4071549;
 382310, 4071428; 382273, 4071219;
 382268, 4071068; 382264, 4070918;
 382141, 4070861; 381900, 4070869;
 381691, 4070966; 381361, 4071037;
 381238, 4070980; 380965, 4070929;
 380812, 4070873; 380627, 4070759;
 380476, 4070763; 380386, 4070796;
 380329, 4070888; 380183, 4071044;
 380004, 4071140; 379946, 4071202;
 379823, 4071145; 379698, 4070999;
 379600, 4070761; 379445, 4070645;
 379050, 4070567; 378715, 4070487;
 378534, 4070493; 378263, 4070532;
 378142, 4070536; 377869, 4070514;
 377753, 4070668; 377635, 4070762;
 377516, 4070796; 377272, 4070744;
 377151, 4070717; 376969, 4070723;
 376700, 4070792; 376551, 4070857;
 376068, 4070872; 375768, 4070942;
 375405, 4070953; 375071, 4070903;
 374892, 4070969; 374774, 4071063;
 374477, 4071223; 374114, 4071205;
 373869, 4071092; 373301, 4071291;
 373065, 4071479; 372945, 4071628;
 373168, 4071877; 373380, 4072302;
 373305, 4073027; 373293, 4073252;
 373093, 4073577; 372943, 4073790;
 372693, 4073852; 372480, 4073752;
 372330, 4073514; 372255, 4073289;
 371993, 4073327; 371693, 4073689;
 371543, 4074102; 371843, 4074765;
 372030, 4075127; 372243, 4075427;
 372205, 4075727; 371980, 4075927;
 371824, 4076302; 371812, 4077578;
 371661, 4078453; 371486, 4078640;
 371024, 4078703; 370743, 4078628;
 370443, 4078490; 370226, 4078314;
 370197, 4078295; 370023, 4078503;
 370037, 4078955; 369931, 4079410;
 369948, 4079952; 370023, 4080401;
 370216, 4080787; 370463, 4080930;
 370861, 4081098; 371163, 4081088;
 371407, 4081171; 371836, 4081368;
 372051, 4081482; 372322, 4081443;
 372676, 4081161; 372814, 4080765;
 372865, 4080462; 373090, 4079913;
 373259, 4079546; 373580, 4079174;
 373739, 4079410; 373866, 4079617;
 374025, 4079883; 374061, 4080063;
 374035, 4080184; returning to 374028,
 4080221.

(ii) Note: Map of Unit 7 (Mount Baxter) for Sierra Nevada bighorn sheep (Map 8) follows:



(13) Unit 8 (Mount Williamson); Inyo and Tulare Counties, California.
 (i) From USGS 1:24,000 scale quadrangle Kearsarge Peak, Mount

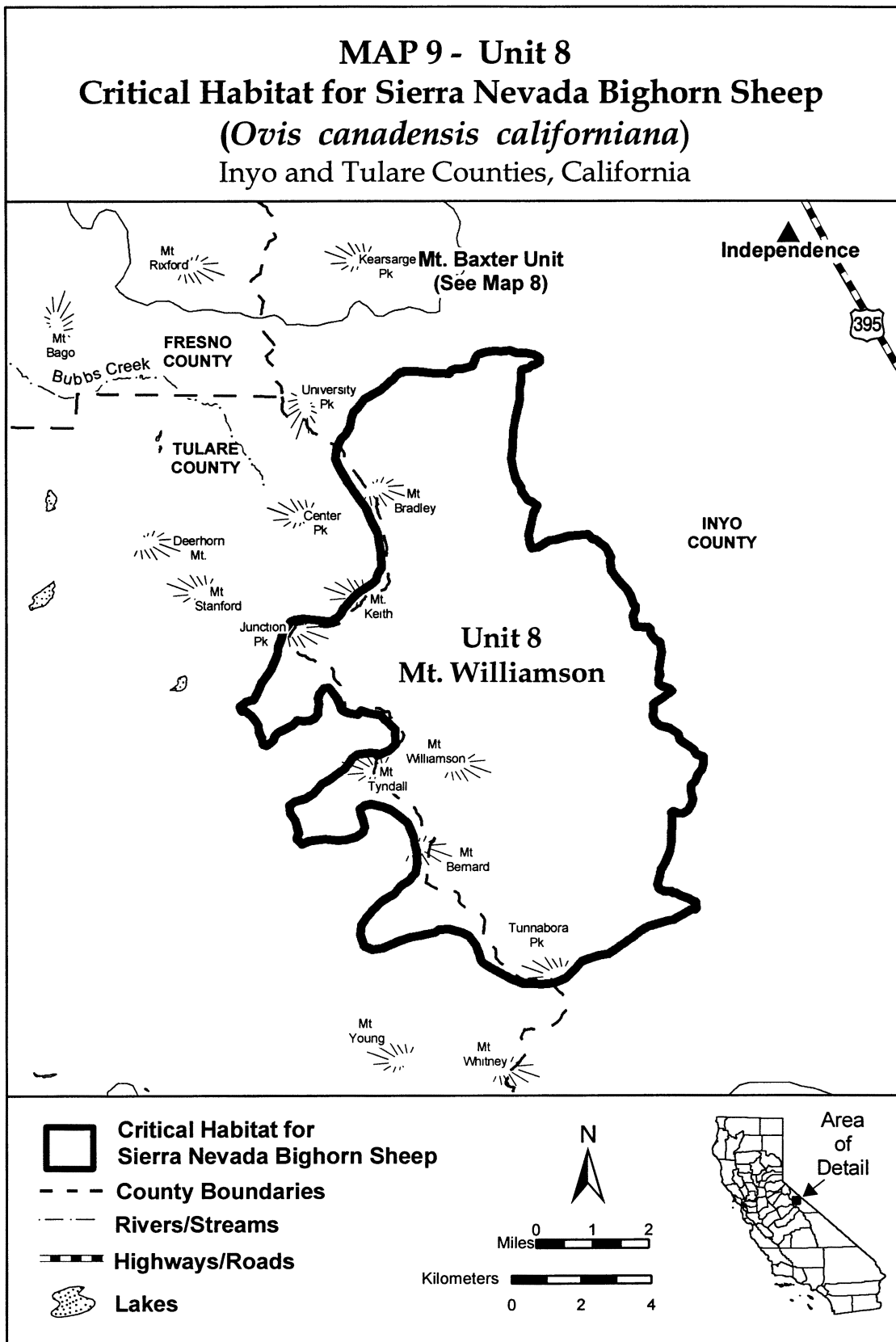
Brewer, Mount Williamson, Manzanar, Mount Whitney and Mount Langley. Land bounded by the following UTM zone 11 NAD83 coordinates (E, N):

384282, 4069770; 384492, 4069703;
 384612, 4069699; 384763, 4069694;
 384974, 4069658; 385152, 4069562;
 385148, 4069441; 384994, 4069356;

384934, 4069358; 384840, 4069270;
 384627, 4069217; 384623, 4069096;
 384617, 4068886; 384580, 4068676;
 384570, 4068345; 384463, 4067836;
 384390, 4067447; 384376, 4066995;
 384334, 4066635; 384385, 4066332;
 384439, 4066120; 384495, 4065998;
 384611, 4065813; 384637, 4065692;
 384753, 4065538; 384810, 4065445;
 384959, 4065380; 385077, 4065286;
 384980, 4065079; 384910, 4064780;
 384839, 4064450; 384862, 4064209;
 384918, 4064056; 385100, 4064081;
 385438, 4064281; 385590, 4064306;
 385804, 4064360; 386017, 4064413;
 386229, 4064437; 386532, 4064457;
 386649, 4064333; 386769, 4064299;
 386886, 4064205; 387004, 4064111;
 387091, 4063988; 387176, 4063804;
 387171, 4063654; 387194, 4063412;
 387310, 4063258; 387397, 4063135;
 387484, 4063042; 387660, 4062855;
 387746, 4062702; 387828, 4062458;
 387887, 4062396; 387883, 4062276;
 387817, 4062097; 387843, 4061976;
 387870, 4061855; 387898, 4061794;
 387989, 4061791; 388140, 4061786;
 388260, 4061782; 388319, 4061720;
 388316, 4061630; 388344, 4061569;
 388460, 4061414; 388579, 4061350;
 388606, 4061229; 388631, 4061078;
 388595, 4060898; 388555, 4060598;
 388580, 4060417; 388546, 4060297;
 388542, 4060177; 388630, 4060084;
 388839, 4060017; 388928, 4059954;
 388773, 4059838; 388618, 4059722;
 388402, 4059579; 388397, 4059398;
 388391, 4059217; 388447, 4059065;
 388594, 4058940; 388774, 4058904;
 388864, 4058871; 389100, 4058713;
 389155, 4058531; 389363, 4058404;
 389540, 4058278; 389596, 4058155;
 389626, 4058124; 389745, 4058090;
 389835, 4058057; 389834, 4058027;
 389832, 4057967; 389829, 4057877;
 389793, 4057697; 389668, 4057551;
 389602, 4057372; 389476, 4057225;
 389472, 4057075; 389497, 4056923;
 389524, 4056832; 389490, 4056683;
 389393, 4056505; 389239, 4056419;
 389119, 4056423; 388970, 4056488;
 388908, 4056460; 388935, 4056339;
 388928, 4056128; 388917, 4055767;
 388912, 4055616; 388873, 4055346;
 388742, 4055019; 388615, 4054812;
 388579, 4054633; 388511, 4054394;
 388566, 4054241; 388716, 4054177;
 388927, 4054170; 388956, 4054139;
 389047, 4054136; 389195, 4054041;
 389404, 4053974; 389523, 4053910;
 389613, 4053877; 389637, 4053696;
 389606, 4053667; 389515, 4053669;
 389362, 4053584; 389208, 4053498;
 388962, 4053355; 388780, 4053331;
 388597, 4053277; 388261, 4053167;
 388014, 4053024; 387829, 4052879;
 387458, 4052620; 387303, 4052504;
 387118, 4052389; 386845, 4052338;
 386600, 4052255; 386356, 4052172;
 386230, 4052026; 385918, 4051704;
 385734, 4051619; 385550, 4051535;
 385187, 4051516; 385006, 4051522;
 384674, 4051532; 384346, 4051663;
 384167, 4051759; 383870, 4051919;
 383573, 4052079; 383456, 4052203;
 383402, 4052416; 383346, 4052538;
 383319, 4052629; 383116, 4052907;
 382907, 4053004; 382548, 4053105;
 382245, 4053085; 382121, 4052998;
 381970, 4052973; 381696, 4052921;
 381422, 4052870; 381087, 4052760;
 380627, 4052563; 380323, 4052513;
 380085, 4052610; 380029, 4052763;
 379974, 4052945; 380013, 4053215;
 380141, 4053422; 380360, 4053686;
 380609, 4053919; 380948, 4054120;
 381137, 4054355; 381414, 4054527;
 381478, 4054645; 381571, 4054703;
 381610, 4054972; 381611, 4055033;
 381616, 4055183; 381592, 4055365;
 381537, 4055547; 381513, 4055759;
 381430, 4055972; 381345, 4056156;
 381109, 4056344; 380873, 4056532;
 380604, 4056631; 380274, 4056701;
 380091, 4056647; 379968, 4056560;
 379993, 4056409; 380049, 4056257;
 380102, 4056044; 380036, 4055865;
 379851, 4055751; 379547, 4055670;
 379304, 4055647; 378973, 4055688;
 378731, 4055665; 378518, 4055642;
 378304, 4055558; 378158, 4055714;
 378223, 4055862; 378114, 4056227;
 377969, 4056443; 377946, 4056654;
 378101, 4056770; 378405, 4056851;
 378590, 4056965; 378715, 4057082;
 378841, 4057259; 378934, 4057316;
 379088, 4057402; 379180, 4057459;
 379273, 4057546; 379521, 4057719;
 379646, 4057866; 379741, 4058014;
 379896, 4058129; 380108, 4058153;
 380260, 4058178; 380561, 4058138;
 380806, 4058251; 380993, 4058426;
 380972, 4058698; 380976, 4058848;
 380712, 4059098; 380536, 4059254;
 382026, 4059324; 379996, 4059391;
 379902, 4059274; 379722, 4059310;
 379631, 4059312; 379453, 4059408;
 379369, 4059622; 379312, 4059744;
 379080, 4060053; 378929, 4060027;
 378803, 4059881; 378768, 4059731;
 378794, 4059580; 378759, 4059430;
 378755, 4059310; 378691, 4059191;
 378537, 4059106; 378325, 4059082;
 378175, 4059117; 378049, 4058971;
 377834, 4058857; 377650, 4058772;
 377526, 4058656; 377492, 4058536;
 377306, 4058391; 377186, 4058425;
 377161, 4058607; 377077, 4058790;
 377052, 4058972; 376908, 4059187;
 376820, 4059280; 376702, 4059374;
 376581, 4059378; 376525, 4059501;
 376711, 4059645; 376924, 4059699;
 377053, 4059966; 377151, 4060204;
 377277, 4060350; 377435, 4060587;
 377600, 4061003; 377637, 4061243;
 377703, 4061422; 377738, 4061571;
 377771, 4061660; 377898, 4061837;
 377992, 4061955; 378115, 4062011;
 378327, 4062035; 378478, 4062030;
 378900, 4061986; 379110, 4061950;
 379325, 4062063; 379420, 4062181;
 379485, 4062329; 379672, 4062534;
 379860, 4062739; 380015, 4062855;
 380292, 4063027; 380417, 4063144;
 380483, 4063322; 380579, 4063500;
 380562, 4063922; 380460, 4064498;
 380261, 4064896; 380149, 4065201;
 379947, 4065478; 379629, 4065940;
 379428, 4066278; 379342, 4066431;
 379258, 4066644; 379299, 4066975;
 379427, 4067211; 379584, 4067387;
 379680, 4067565; 379718, 4067805;
 379784, 4067983; 379940, 4068159;
 380098, 4068365; 380252, 4068451;
 380591, 4068651; 380653, 4068709;
 380777, 4068826; 380840, 4068884;
 380901, 4068912; 380964, 4069001;
 381026, 4069059; 381120, 4069146;
 381180, 4069144; 381242, 4069173;
 381362, 4069169; 381453, 4069166;
 381543, 4069163; 381785, 4069156;
 381935, 4069121; 382146, 4069114;
 382297, 4069109; 382358, 4069107;
 382478, 4069104; 382539, 4069102;
 382572, 4069191; 382725, 4069246;
 382815, 4069244; 382906, 4069241;
 383119, 4069294; 383210, 4069322;
 383243, 4069411; 383310, 4069590;
 383403, 4069677; 383616, 4069731;
 383828, 4069754; 383919, 4069751;
 384010, 4069748; returning to 384282,
 4069770.

(ii) Note: Map of Unit 8 (Mount Williamson) for Sierra Nevada bighorn sheep (Map 9) follows:

BILLING CODE 4310-55-P



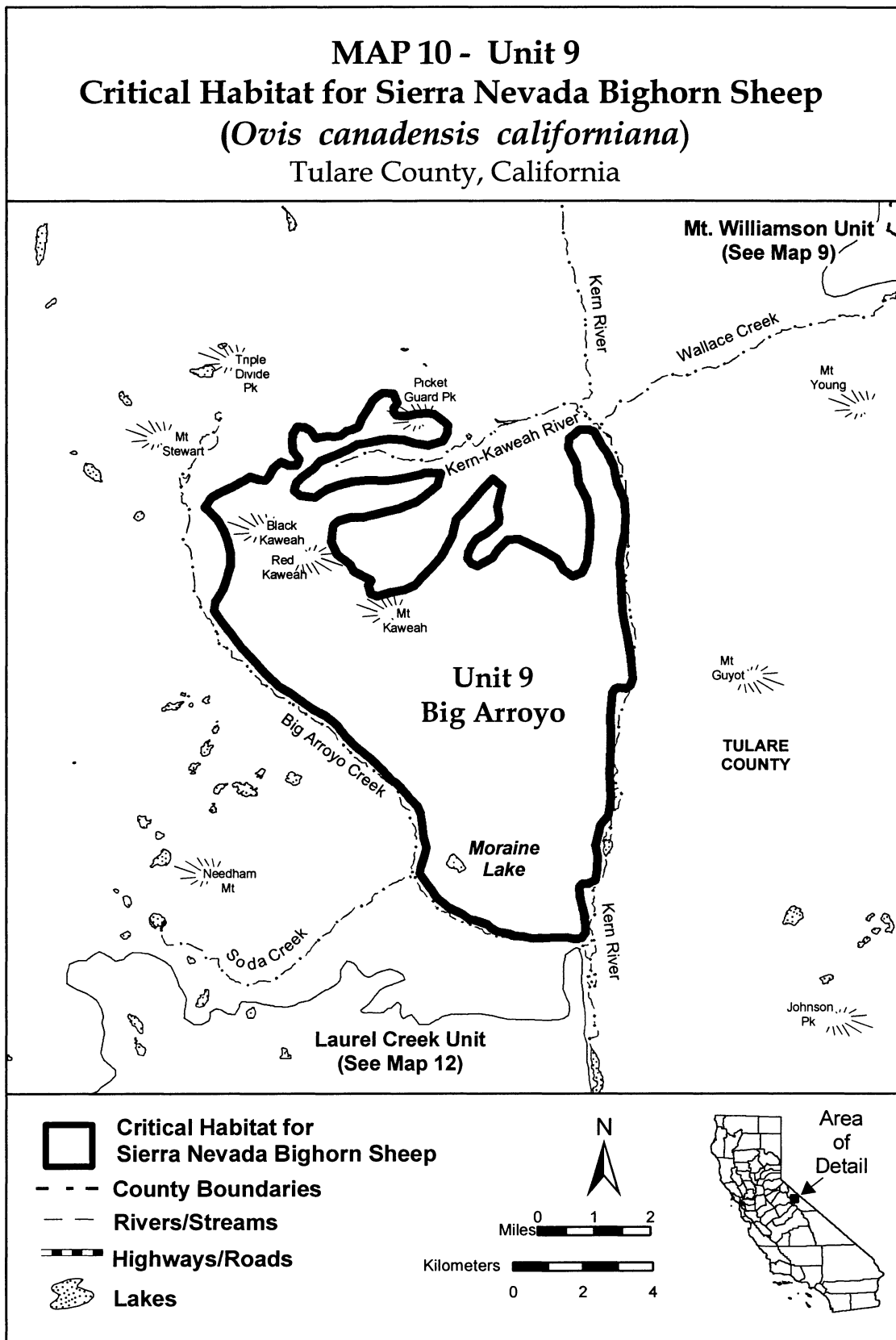
(14) Unit 9 (Big Arroyo); Tulare County, California.

(i) From USGS 1:24,000 scale quadrangles Triple Divide Peak, Mount Kaweah, and Chagoopa Falls. Land

bounded by the following UTM zone 11 NAD83 coordinates (E, N): 367856, 4049078; 368038, 4049073; 368311,

4049124; 368644, 4049144; 368824, 4049108; 369090, 4048919; 369207, 4048795; 369203, 4048644; 369201, 4048584; 369169, 4048525; 369072, 4048347; 368645, 4048210; 368224, 4048284; 367925, 4048383; 367593, 4048394; 367503, 4048397; 367260, 4048374; 366955, 4048293; 366591, 4048244; 366345, 4048102; 365916, 4047904; 365549, 4047765; 365361, 4047560; 364989, 4047270; 364864, 4047124; 364797, 4046915; 364973, 4046759; 365395, 4046715; 365735, 4046946; 366102, 4047085; 366467, 4047164; 366891, 4047211; 367465, 4047193; 367920, 4047269; 368407, 4047374; 368560, 4047429; 369013, 4047415; 368911, 4047057; 368632, 4046825; 368322, 4046593; 367802, 4046399; 367406, 4046291; 366767, 4046130; 366404, 4046141; 366068, 4046031; 365913, 4045886; 365868, 4045435; 366038, 4045068; 366392, 4044786; 366506, 4044572; 367012, 4044315; 366916, 4044167; 366999, 4043924; 367179, 4043858; 367575, 4043966; 367970, 4044044; 368277, 4044185; 368402, 4044331; 368714, 4044653; 369028, 4045005; 369348, 4045597; 369454, 4046076; 369830, 4046486; 370175, 4046897; 370518, 4047247; 370783, 4047028; 370644, 4046430; 370695, 4046127; 370690, 4045977; 370534, 4045831; 370317, 4045657; 370041, 4045515; 369914, 4045338; 369817, 4045130; 369781, 4044951; 369897, 4044797; 370077, 4044731; 370292, 4044844; 370507, 4044958; 370665, 4045194; 370946, 4045487; 371279, 4045506; 371607, 4045345; 372024, 4045152; 372379, 4044929; 372551, 4044623; 372817, 4044434; 373092, 4044546; 373223, 4044843; 373304, 4045503; 373323, 4046105; 373219, 4046650; 372992, 4047109; 372919, 4047684; 372692, 4048143; 372701, 4048414; 373011, 4048675; 373283, 4048667; 373432, 4048602; 373602, 4048265; 373805, 4047988; 373975, 4047621; 374080, 4047105; 374277, 4046647; 374322, 4046164; 374308, 4045712; 374200, 4045174; 374158, 4044783; 374181, 4044572; 374200, 4044210; 374217, 4043787; 374236, 4043425; 374288, 4043152; 374391, 4042607; 374467, 4042122; 374516, 4041759; 374537, 4041488; 374470, 4041279; 374347, 4041192; 374136, 4041229; 374014, 4041173; 373950, 4041054; 373904, 4040574; 373897, 4040333; 373915, 4039971; 373903, 4039579; 373888, 4039098; 373877, 4038737; 373895, 4038375; 373915, 4038043; 373877, 4037773; 373839, 4037533; 373619, 4037269; 373549, 4036970; 373479, 4036670; 373530, 4036368; 373518, 4035976; 373478, 4035676; 373263, 4035563; 373112, 4035567; 373019, 4035480; 373040, 4035208; 373120, 4034844; 373172, 4034601; 373171, 4034571; 373195, 4034360; 373188, 4034149; 373125, 4034061; 373093, 4034001; 372881, 4033978; 372671, 4034015; 372489, 4034020; 372278, 4034027; 372096, 4034002; 372005, 4034005; 371642, 4033987; 371403, 4034054; 371161, 4034062; 371012, 4034127; 370652, 4034198; 370474, 4034294; 370386, 4034387; 369997, 4034520; 369847, 4034555; 369670, 4034681; 369253, 4034875; 368900, 4035187; 368785, 4035372; 368611, 4035588; 368408, 4035866; 368444, 4036045; 368544, 4036343; 368613, 4036612; 368531, 4036916; 368483, 4037309; 368432, 4037582; 368318, 4037827; 368114, 4038044; 367910, 4038291; 367764, 4038447; 367616, 4038542; 367411, 4038759; 367265, 4038914; 366971, 4039194; 366588, 4039508; 366295, 4039788; 366005, 4040159; 365710, 4040409; 365323, 4040602; 364940, 4040885; 364704, 4041073; 364407, 4041233; 364172, 4041451; 363937, 4041670; 363675, 4041979; 363294, 4042383; 363033, 4042722; 362830, 4043000; 362598, 4043309; 362513, 4043462; 362550, 4043702; 362773, 4044056; 362873, 4044354; 362976, 4044743; 362987, 4045104; 362907, 4045438; 362796, 4045743; 362624, 4046049; 362419, 4046267; 362243, 4046423; 362434, 4046718; 362771, 4046888; 363048, 4047030; 363355, 4047201; 363540, 4047316; 363809, 4047217; 363990, 4047211; 364085, 4047329; 364213, 4047566; 364430, 4047740; 364638, 4047643; 364880, 4047635; 364946, 4047814; 364918, 4047875; 364772, 4048061; 364751, 4048332; 364757, 4048543; 364885, 4048750; 365096, 4048743; 365274, 4048647; 365419, 4048432; 365540, 4048458; 365753, 4048482; 365964, 4048475; 366116, 4048500; 366302, 4048645; 366454, 4048671; 366638, 4048755; 366736, 4048993; 366926, 4049288; 367023, 4049466; 367148, 4049613; 367333, 4049727; 367635, 4049718; 367747, 4049443; 367652, 4049296; 367648, 4049175; 367736, 4049082; returning to 367856, 4049078.

(ii) Note: Map of Unit 9 (Big Arroyo) for Sierra Nevada bighorn sheep (Map 10) follows:



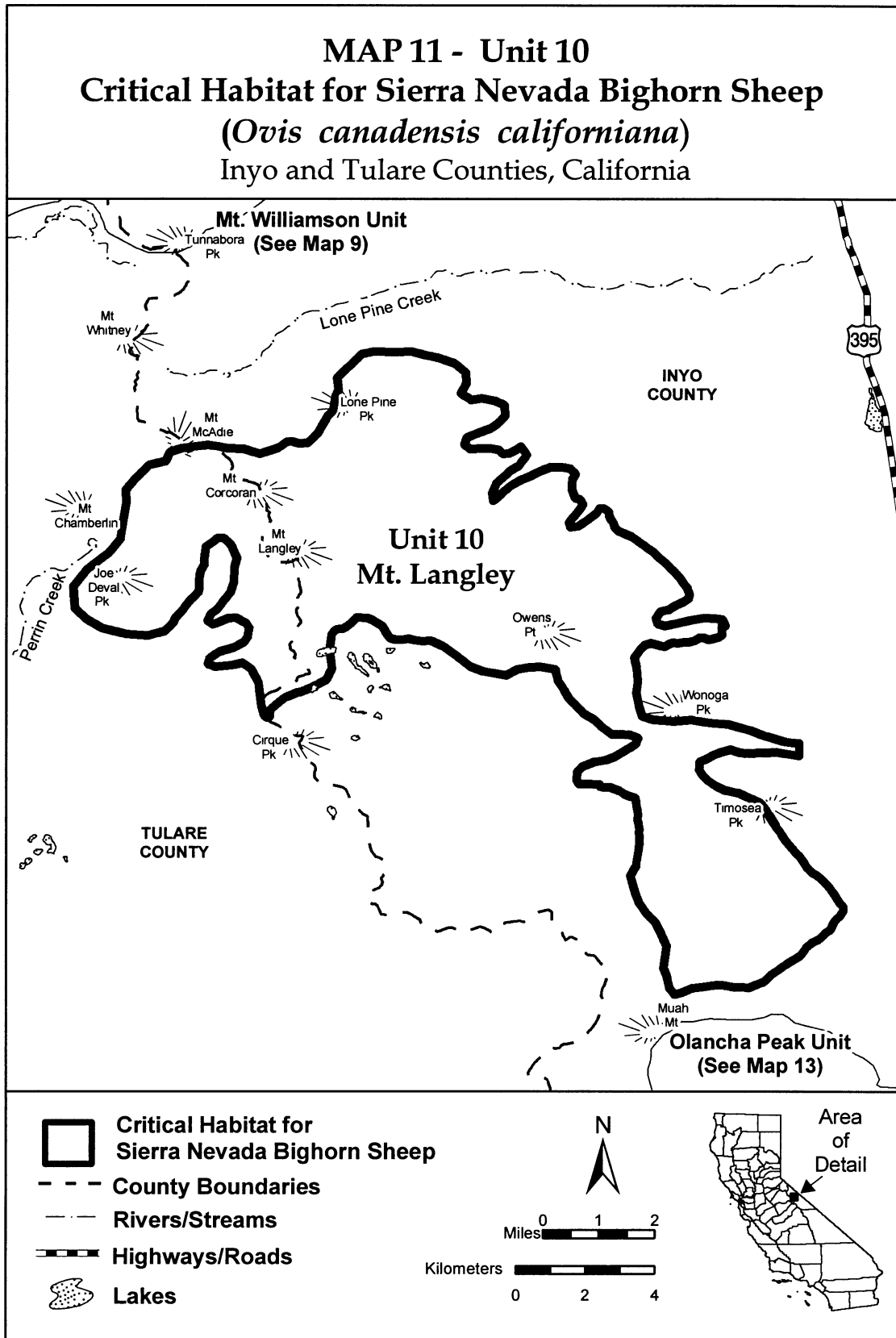
(15) Unit 10 (Mount Langley); Inyo and Tulare Counties, California.
 (i) From USGS 1:24,000 scale quadrangles Mount Whitney, Mount

Langley, Lone Pine, Johnson Peak, Cirque Peak, and Bartlett. Land bounded by the following UTM zone 11 NAD83 coordinates (E, N): 391201, 4048676;

391835, 4048656; 392289, 4048672; 392648, 4048570; 393008, 4048499; 393517, 4048332; 393840, 4048051; 393861, 4047749; 393701, 4047453;

393997, 4047263; 394301, 4047313;
 394691, 4047241; 394959, 4047112;
 394980, 4046810; 394761, 4046576;
 394545, 4046432; 394209, 4046322;
 393872, 4046182; 393805, 4045973;
 393952, 4045848; 394346, 4045866;
 394557, 4045859; 394797, 4045822;
 394914, 4045698; 395096, 4045722;
 395312, 4045836; 395435, 4045922;
 395609, 4045676; 395357, 4045352;
 395142, 4045239; 394955, 4045064;
 394737, 4044860; 394607, 4044562;
 394630, 4044351; 394785, 4044466;
 394972, 4044641; 395189, 4044815;
 395465, 4044957; 395741, 4045069;
 396017, 4045211; 396292, 4045323;
 396624, 4045312; 396865, 4045275;
 397011, 4045120; 396916, 4044972;
 396912, 4044852; 396906, 4044671;
 396989, 4044427; 397139, 4044392;
 397225, 4044239; 397130, 4044092;
 397004, 4043945; 396941, 4043856;
 396910, 4043827; 396816, 4043710;
 396872, 4043588; 397085, 4043611;
 397269, 4043726; 397424, 4043841;
 397610, 4043986; 397705, 4044134;
 397826, 4044130; 397974, 4044035;
 397988, 4043910; 398032, 4043812;
 398101, 4043709; 398135, 4043591;
 398258, 4043464; 398459, 4043386;
 398630, 4043312; 398832, 4043175;
 399028, 4043028; 399145, 4042939;
 399209, 4042895; 399312, 4042807;
 399366, 4042758; 399410, 4042704;
 399454, 4042670; 399582, 4042567;
 399694, 4042459; 399758, 4042385;
 399846, 4042312; 399944, 4042199;
 400033, 4042101; 400096, 4041978;
 400219, 4041836; 400286, 4041643;
 400252, 4041523; 400128, 4041437;
 400005, 4041380; 399883, 4041324;
 399698, 4041209; 399455, 4041157;
 399327, 4040950; 399383, 4040797;
 399592, 4040731; 399927, 4040810;
 400292, 4040889; 400718, 4040966;
 401019, 4040957; 401230, 4040920;
 401313, 4040742; 401218, 4040743;
 401216, 4040470; 401215, 4040469;
 401123, 4040411; 400849, 4040330;
 400699, 4040395; 400579, 4040398;
 400425, 4040313; 400272, 4040257;
 400151, 4040261; 399969, 4040237;
 399818, 4040242; 399727, 4040214;
 399573, 4040129; 399364, 4040196;
 399184, 4040231; 399001, 4040177;
 398875, 4040030; 398718, 4039824;
 398769, 4039552; 398794, 4039370;
 398816, 4039098; 398776, 4038798;
 398854, 4038404; 398936, 4038130;
 399265, 4038030; 399537, 4038021;
 399838, 4037982; 400353, 4038026;
 400864, 4037949; 401406, 4037902;
 402036, 4037732; 402453, 4037568;
 403052, 4037399; 403265, 4037370;
 403437, 4037350; 403454, 4037349;
 403451, 4037001; 403437, 4037001;
 402801, 4037105; 402468, 4037086;
 401954, 4037072; 401743, 4037078;
 401474, 4037177; 401200, 4037095;
 400986, 4037012; 400832, 4036926;
 400587, 4036813; 400582, 4036663;
 400580, 4036603; 400666, 4036449;
 400841, 4036263; 401078, 4036105;
 401286, 4036008; 401736, 4035904;
 402332, 4035644; 402478, 4035459;
 402592, 4035244; 402736, 4035029;
 402939, 4034751; 403054, 4034567;
 403316, 4034257; 403521, 4034040;
 403693, 4033764; 403840, 4033638;
 403988, 4033543; 404106, 4033449;
 404311, 4033232; 404456, 4033047;
 404629, 4032770; 404746, 4032646;
 404742, 4032526; 404646, 4032378;
 404481, 4032210; 404371, 4031974;
 404270, 4031915; 404169, 4031814;
 404034, 4031695; 403840, 4031602;
 403679, 4031476; 403510, 4031223;
 403325, 4031113; 403114, 4030986;
 402911, 4030843; 402683, 4030682;
 402455, 4030471; 402345, 4030421;
 402016, 4030302; 401797, 4030311;
 401611, 4030311; 401256, 4030370;
 401079, 4030370; 400767, 4030328;
 400404, 4030286; 400100, 4030159;
 399880, 4030100; 399745, 4030286;
 399661, 4030640; 399568, 4030868;
 399652, 4031501; 399492, 4031881;
 399323, 4032202; 399070, 4032464;
 398876, 4032742; 398758, 4033029;
 398606, 4033527; 398766, 4033823;
 398859, 4034354; 398867, 4034473;
 398867, 4034574; 398867, 4034692;
 398859, 4034768; 398867, 4034878;
 398859, 4034962; 398842, 4035047;
 398817, 4035156; 398825, 4035292;
 398817, 4035418; 398783, 4035553;
 398775, 4035671; 398741, 4035787;
 398591, 4035822; 398442, 4035887;
 398294, 4035982; 398026, 4036080;
 397844, 4036086; 397727, 4036104;
 397729, 4036166; 397321, 4036177;
 397117, 4036180; 397065, 4036291;
 397073, 4036532; 397229, 4036678;
 397565, 4036818; 397899, 4036868;
 398144, 4036950; 398575, 4037208;
 398760, 4037323; 398826, 4037501;
 398587, 4037599; 398285, 4037609;
 398074, 4037615; 397779, 4037835;
 397573, 4038023; 397247, 4038214;
 396925, 4038555; 396808, 4038679;
 396694, 4038894; 396521, 4039140;
 396440, 4039474; 396020, 4039548;
 395687, 4039528; 395353, 4039478;
 395015, 4039308; 394354, 4039419;
 393996, 4039551; 393553, 4039896;
 393199, 4040148; 392841, 4040310;
 392599, 4040288; 392388, 4040324;
 392208, 4040360; 392026, 4040336;
 391845, 4040341; 391695, 4040376;
 391607, 4040469; 391464, 4040715;
 391168, 4040905; 391019, 4040970;
 390717, 4040979; 390615, 4040870;
 390526, 4040776; 390443, 4040719;
 390324, 4040646; 390241, 4040657;
 390158, 4040641; 390080, 4040574;
 390002, 4040480; 389955, 4040018;
 390023, 4039509; 389862, 4039176;
 389441, 4038958; 389108, 4038818;
 389015, 4038797; 388682, 4038673;
 388527, 4038553; 388246, 4038309;
 388225, 4038111; 388142, 4038091;
 388054, 4038169; 387992, 4038413;
 387898, 4039083; 387695, 4039478;
 387443, 4039666; 387108, 4039586;
 386653, 4039541; 386445, 4039637;
 386479, 4039787; 386788, 4039988;
 387154, 4040097; 387492, 4040267;
 387587, 4040415; 387626, 4040685;
 387539, 4040808; 387242, 4040968;
 387030, 4040945; 386663, 4040805;
 386571, 4040778; 386423, 4040873;
 386520, 4041081; 386706, 4041226;
 386895, 4041461; 387083, 4041696;
 387183, 4041994; 387197, 4042415;
 387266, 4042684; 387125, 4043020;
 387068, 4043112; 386891, 4043269;
 386710, 4043274; 386617, 4043187;
 386370, 4043014; 386328, 4042654;
 386323, 4042503; 386227, 4042325;
 386193, 4042206; 386187, 4042025;
 386181, 4041815; 386147, 4041695;
 385866, 4041403; 385677, 4041168;
 385489, 4040963; 385424, 4040814;
 385175, 4040581; 384687, 4040446;
 384085, 4040495; 383395, 4040667;
 382950, 4040922; 382597, 4041234;
 382557, 4041868; 382965, 4042368;
 383585, 4042860; 383899, 4043242;
 383974, 4043692; 384083, 4044291;
 384064, 4044653; 384347, 4045005;
 384752, 4045384; 385209, 4045490;
 385338, 4045757; 385674, 4045867;
 386068, 4045915; 386432, 4045964;
 386733, 4045925; 387003, 4045856;
 387456, 4045842; 387935, 4045706;
 388454, 4045870; 388701, 4046043;
 388853, 4046069; 389062, 4046002;
 389305, 4046024; 389585, 4046287;
 389713, 4046524; 389873, 4046790;
 390029, 4046966; 390102, 4047355;
 390199, 4047563; 390149, 4047896;
 390462, 4048217; 390866, 4048596;
 returning to 391201, 4048676.

(ii) Note: Map of Unit 10 (Mount Langley) for Sierra Nevada bighorn sheep (Map 11) follows:



(16) Unit 11 (Laurel Creek); Tulare County, California.
(i) From USGS 1:24,000 scale quadrangles Mineral King, Chagoopa

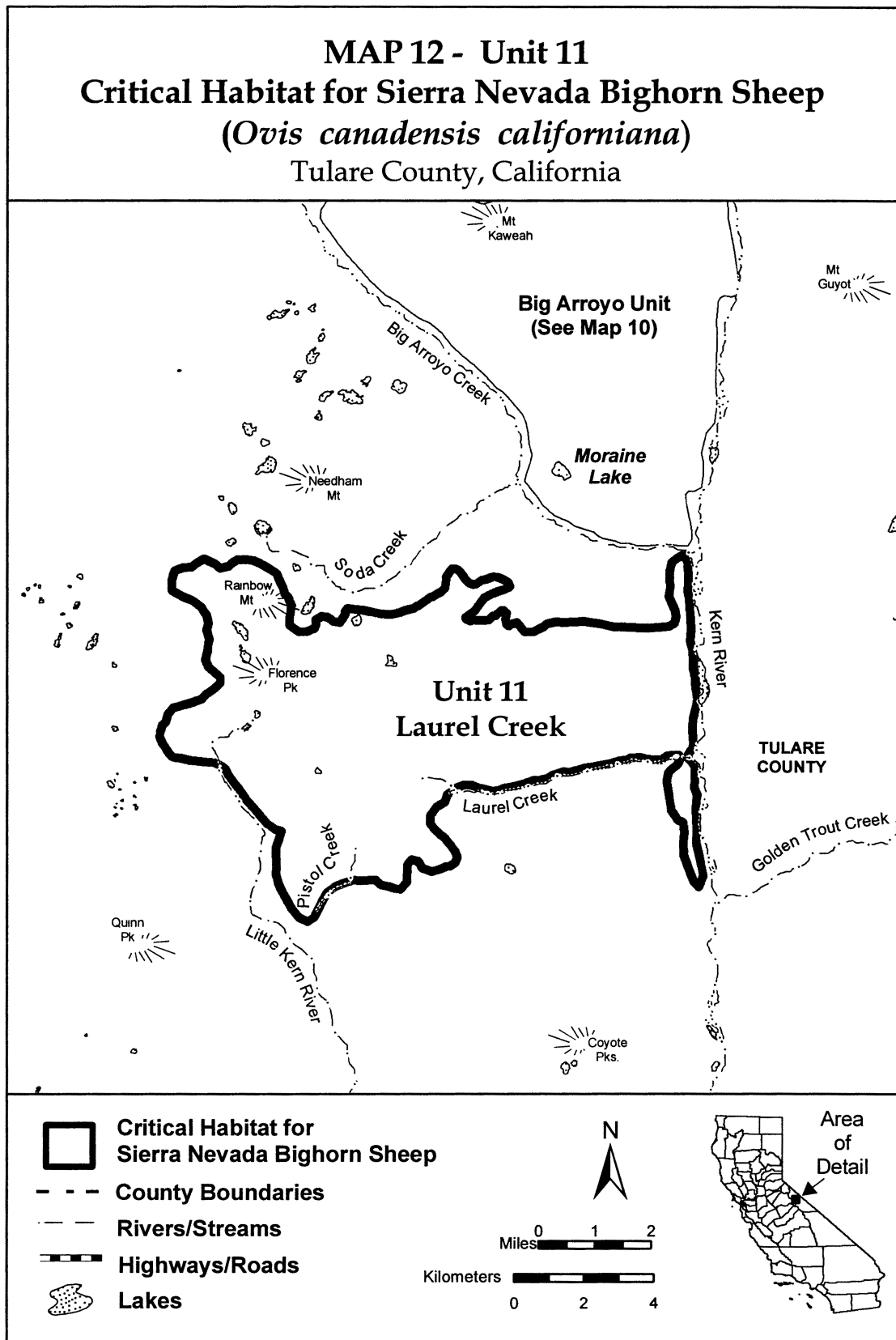
Falls, Quinn Peak, and Kern Lake. Land bounded by the following UTM zone 11 NAD83 coordinates (E, N): 373174, 4031891; 373186, 4031558; 373154,

4031248; 373234, 4030979; 373246, 4030646; 373240, 4030446; 373299, 4030200; 373294, 4030045; 373311, 4029867; 373368, 4029577; 373315,

4029290; 373265, 4029114; 373238, 4028981; 373232, 4028782; 373228, 4028671; 373244, 4028471; 373261, 4028292; 373235, 4028160; 373118, 4027986; 373114, 4027853; 373201, 4027784; 373307, 4027625; 373303, 4027492; 373295, 4027248; 373288, 4027026; 373370, 4026802; 373343, 4026647; 373335, 4026403; 373361, 4025803; 373349, 4025426; 373426, 4025046; 373542, 4024488; 373421, 4024158; 373270, 4024319; 373084, 4024791; 372982, 4025082; 372972, 4025460; 373002, 4025726; 372967, 4026015; 372813, 4026087; 372622, 4026381; 372567, 4026738; 372492, 4027184; 372494, 4027251; 372544, 4027449; 372683, 4027600; 372797, 4027685; 372844, 4027773; 372868, 4027839; 372850, 4027950; 372627, 4027957; 372493, 4027939; 372334, 4027833; 372088, 4027819; 371867, 4027848; 371735, 4027896; 371467, 4027883; 371376, 4027819; 371153, 4027804; 370951, 4027743; 370794, 4027704; 370614, 4027665; 370368, 4027628; 370167, 4027590; 369942, 4027531; 369740, 4027471; 369540, 4027477; 369315, 4027417; 369225, 4027376; 369088, 4027291; 368842, 4027232; 368686, 4027237; 368416, 4027135; 368191, 4027075; 368057, 4027057; 367878, 4027018; 367675, 4026936; 367474, 4026920; 367297, 4026970; 367076, 4027021; 366900, 4027093; 366656, 4027101; 366475, 4027018; 366339, 4026933; 366202, 4026827; 366128, 4026607; 365901, 4026481; 365715, 4026220; 365708, 4025999; 365794, 4025885; 366031, 4025655; 366097, 4025609; 366225, 4025450; 366418, 4025199; 366479, 4025020; 366407, 4024844; 366270, 4024760; 366159, 4024741; 365979, 4024680; 365753, 4024599; 365468, 4024718; 365362, 4024899; 365163, 4024950; 365047, 4024798; 365032, 4024310; 364847, 4024094; 364692, 4024121; 364515, 4024171; 364294, 4024222; 364143, 4024360; 363697, 4024352; 363475, 4024359; 363204, 4024257; 362979, 4024175; 362728, 4023983; 362562, 4023655; 362372, 4023284; 362190, 4023156; 361949, 4023275; 361734, 4023526; 361439, 4024046; 361355, 4024226; 361276, 4024539; 361283, 4024739; 361287, 4024894; 361272, 4025116; 361278, 4025294; 361376, 4025579; 361426, 4025778; 361250, 4025827; 361010, 4025990; 360838, 4026196; 360688, 4026378; 360408, 4026675; 360260, 4026924; 360046, 4027197; 359897, 4027402; 359791, 4027583; 359529, 4027746; 359063, 4027783; 358774, 4027814; 358531, 4027866; 358309, 4027895; 358180, 4028033; 358116, 4028124; 358009, 4028282; 357927, 4028485; 357931, 4028618; 358005, 4028837; 358096, 4028901; 358170, 4029143; 358309, 4029316; 358871, 4029476; 359141, 4029579; 359257, 4029708; 359484, 4029857; 359667, 4030028; 359672, 4030184; 359521, 4030322; 359325, 4030483; 359243, 4030686; 359295, 4030928; 359325, 4031171; 359351, 4031282; 359270, 4031551; 359321, 4031749; 359261, 4031973; 359113, 4032221; 358851, 4032407; 358587, 4032504; 358259, 4032692; 358269, 4033003; 358344, 4033267; 358592, 4033348; 358837, 4033362; 358952, 4033470; 359201, 4033617; 359530, 4033452; 359660, 4033336; 359907, 4033395; 359976, 4033482; 360158, 4033587; 360425, 4033579; 360624, 4033550; 360800, 4033478; 361106, 4033313; 361280, 4033175; 361405, 4032904; 361468, 4032769; 361508, 4032613; 361594, 4032521; 361719, 4032251; 361664, 4031919; 361657, 4031698; 361918, 4031512; 362074, 4031507; 362141, 4031505; 362367, 4031609; 362415, 4031740; 362396, 4031852; 362578, 4031957; 362711, 4031931; 362842, 4031860; 362907, 4031814; 363107, 4031785; 363177, 4031894; 363224, 4031959; 363248, 4032025; 363250, 4032092; 363320, 4032178; 363564, 4032148; 363742, 4032143; 363940, 4032092; 364228, 4032039; 364294, 4032015; 364472, 4032009; 364583, 4032005; 364830, 4032064; 364966, 4032127; 365212, 4032186; 365326, 4032249; 365371, 4032269; 365553, 4032397; 365712, 4032503; 365780, 4032523; 365916, 4032607; 366029, 4032671; 366122, 4032779; 366147, 4032889; 366152, 4033022; 366154, 4033088; 366317, 4033327; 366406, 4033325; 366516, 4033277; 366602, 4033185; 366665, 4033072; 366816, 4032912; 366948, 4032864; 367016, 4032884; 367175, 4032990; 367310, 4033030; 367512, 4033090; 367623, 4033087; 367799, 4033015; 367930, 4032944; 367993, 4032809; 367812, 4032726; 367632, 4032665; 367429, 4032582; 367248, 4032477; 367132, 4032325; 366969, 4032108; 366718, 4031916; 366739, 4031871; 366849, 4031823; 366916, 4031844; 367049, 4031839; 367250, 4031833; 367384, 4031851; 367499, 4031958; 367588, 4031978; 367634, 4032021; 367749, 4032128; 367815, 4032126; 367880, 4032057; 367852, 4031859; 367892, 4031724; 367957, 4031678; 368048, 4031741; 368183, 4031782; 368397, 4031508; 368486, 4031506; 368664, 4031500; 368891, 4031626; 368958, 4031646; 369050, 4031732; 369297, 4031791; 369564, 4031783; 369809, 4031797; 370121, 4031810; 370520, 4031753; 370984, 4031649; 371185, 4031643; 371741, 4031626; 372030, 4031617; 372432, 4031648; 372543, 4031667; 372702, 4031751; 372753, 4031949; 372714, 4032150; 372652, 4032285; 372548, 4032533; 372578, 4032776; 372564, 4033021; 372571, 4033264; 372624, 4033507; 372783, 4033635; 372942, 4033719; 373052, 4033671; 373028, 4033628; 373070, 4033537; 373088, 4033404; 373101, 4033115; 373095, 4032937; 373087, 4032671; 373125, 4032470; 373138, 4032159; returning to 373174, 4031891.

(ii) Note: Map of Unit 11 (Laurel Creek) for Sierra Nevada bighorn sheep (Map 12) follows:

BILLING CODE 4310-55-P



(17) Unit 12 (Olancha Peak); Inyo and Tulare Counties, California.

(i) From USGS 1:24,000 scale quadrangles Cirque Peak, Bartlett,

Templeton Mountain, Olancha, and Haiwee Pass. Land bounded by the following UTM zone 11 NAD83 coordinates (E, N): 403133, 4029453;

403358, 4029282; 403619, 4029209; 403945, 4029133; 404369, 4029021; 404658, 4028816; 404816, 4028614; 405104, 4028376; 405331, 4028270;

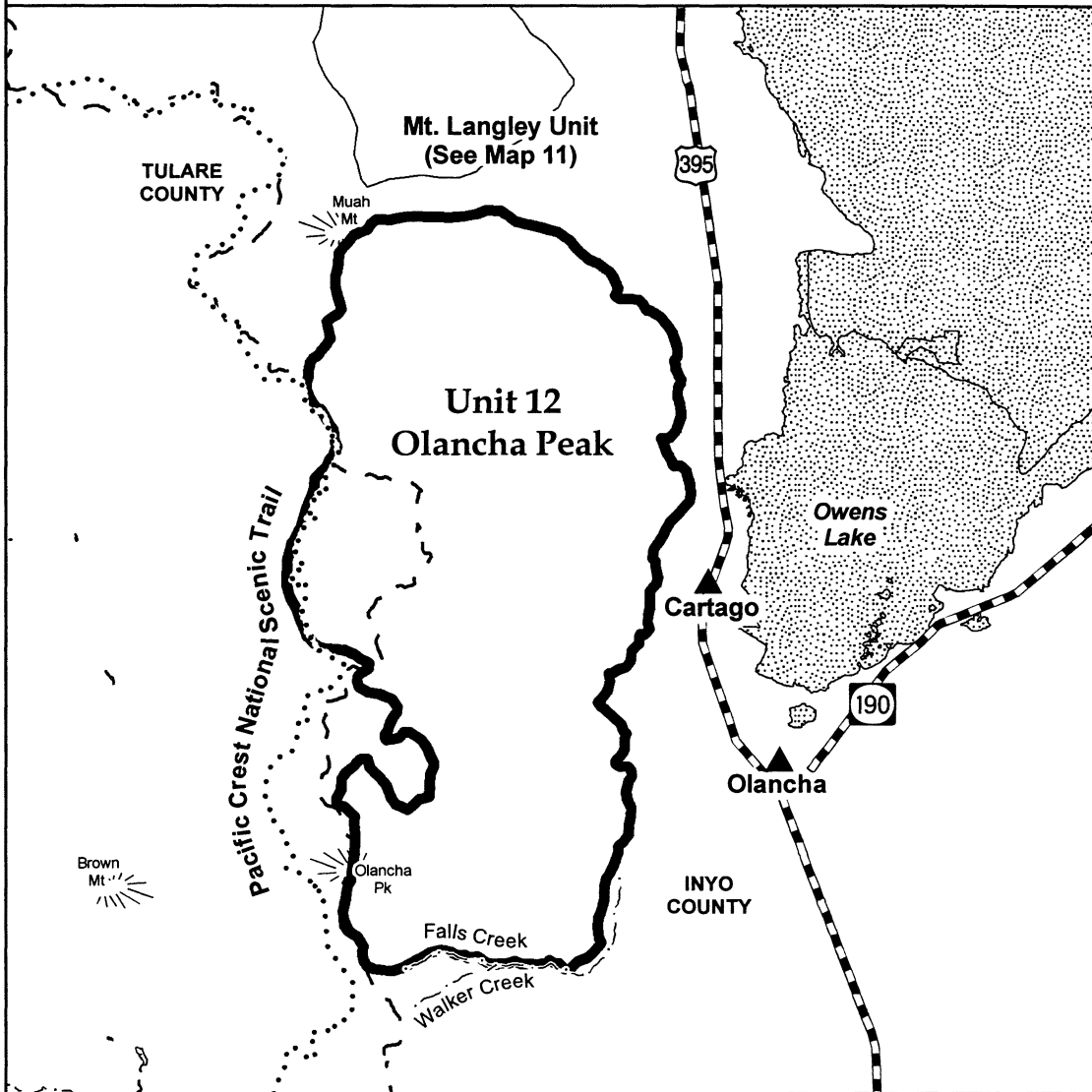
405620, 4028065; 405682, 4027932;
 405805, 4027666; 405734, 4027504;
 405863, 4027434; 406060, 4027428;
 406290, 4027421; 406385, 4027320;
 406479, 4027153; 406544, 4027151;
 406674, 4027081; 406738, 4027046;
 406835, 4026978; 406993, 4026776;
 407086, 4026610; 407116, 4026510;
 407176, 4026345; 407206, 4026245;
 407201, 4026082; 407131, 4025953;
 407161, 4025854; 407158, 4025755;
 407190, 4025722; 407251, 4025589;
 407282, 4025522; 407279, 4025424;
 407210, 4025328; 407206, 4025197;
 407203, 4025099; 407234, 4025032;
 407263, 4024933; 407291, 4024768;
 407287, 4024637; 407250, 4024507;
 407178, 4024313; 407042, 4024153;
 406975, 4024123; 406909, 4024125;
 406811, 4024128; 406841, 4024061;
 406903, 4023928; 406933, 4023829;
 406963, 4023763; 407057, 4023596;
 407118, 4023463; 407282, 4023458;
 407411, 4023355; 407439, 4023223;
 407499, 4023025; 407524, 4022795;
 407487, 4022632; 407350, 4022473;
 407214, 4022313; 407044, 4022154;
 407010, 4022123; 406941, 4021994;
 406870, 4021832; 406765, 4021639;
 406663, 4021511; 406627, 4021414;
 406622, 4021283; 406686, 4021215;
 406682, 4021085; 406739, 4020821;
 406701, 4020658; 406634, 4020595;
 406565, 4020498; 406562, 4020400;
 406557, 4020237; 406553, 4020106;
 406515, 4019943; 406508, 4019747;
 406537, 4019615; 406434, 4019487;
 406336, 4019490; 406301, 4019425;
 406296, 4019262; 406194, 4019167;
 406127, 4019103; 406121, 4018939;
 406086, 4018842; 405983, 4018714;
 405817, 4018654; 405649, 4018561;
 405584, 4018563; 405583, 4018530;
 405611, 4018398; 405572, 4018203;
 405538, 4018139; 405435, 4018011;
 405400, 4017946; 405332, 4017883;
 405395, 4017783; 405428, 4017782;
 405460, 4017748; 405620, 4017612;
 405779, 4017443; 405875, 4017374;
 405935, 4017209; 405999, 4017141;
 405962, 4017011; 405959, 4016913;
 405955, 4016782; 405919, 4016685;
 405885, 4016653; 405816, 4016557;
 405749, 4016494; 405747, 4016428;
 405843, 4016360; 405942, 4016356;

406040, 4016353; 406104, 4016286;
 406134, 4016219; 406131, 4016121;
 406063, 4016025; 406026, 4015895;
 405988, 4015732; 406018, 4015666;
 406016, 4015600; 406108, 4015368;
 406101, 4015172; 406062, 4014976;
 406055, 4014747; 405918, 4014555;
 405816, 4014460; 405812, 4014329;
 405703, 4014005; 405598, 4013811;
 405530, 4013715; 405491, 4013520;
 405488, 4013422; 405480, 4013192;
 405405, 4012900; 405336, 4012771;
 405329, 4012542; 405353, 4012279;
 405416, 4012179; 405313, 4012051;
 405109, 4011828; 404843, 4011738;
 404673, 4011547; 404541, 4011551;
 404414, 4011686; 404316, 4011689;
 404187, 4011758; 404086, 4011696;
 403921, 4011668; 403724, 4011675;
 403625, 4011678; 403527, 4011681;
 403365, 4011751; 403199, 4011691;
 403002, 4011697; 402935, 4011667;
 402706, 4011707; 402610, 4011775;
 402480, 4011845; 402250, 4011819;
 402186, 4011887; 401989, 4011893;
 401860, 4011962; 401729, 4011999;
 401598, 4012003; 401366, 4011945;
 401165, 4011820; 401032, 4011759;
 400764, 4011604; 400498, 4011514;
 400367, 4011518; 400040, 4011561;
 399878, 4011631; 399816, 4011764;
 399787, 4011896; 399790, 4011995;
 399794, 4012093; 399732, 4012226;
 399669, 4012326; 399540, 4012396;
 399444, 4012464; 399349, 4012598;
 399327, 4012927; 399402, 4013219;
 399406, 4013350; 399445, 4013546;
 399515, 4013674; 399520, 4013838;
 399557, 4013968; 399563, 4014164;
 399600, 4014294; 399608, 4014556;
 399611, 4014654; 399615, 4014785;
 399590, 4015016; 399595, 4015179;
 399404, 4015382; 399177, 4015487;
 399182, 4015618; 399286, 4015812;
 399294, 4016073; 399398, 4016234;
 399566, 4016360; 399635, 4016456;
 399737, 4016551; 399901, 4016546;
 399960, 4016347; 400087, 4016212;
 400183, 4016111; 400341, 4015910;
 400463, 4015611; 400557, 4015477;
 400849, 4015337; 400916, 4015400;
 401120, 4015590; 401351, 4015648;
 401360, 4015910; 401368, 4016172;
 401440, 4016367; 401443, 4016465;
 401381, 4016598; 401321, 4016764;

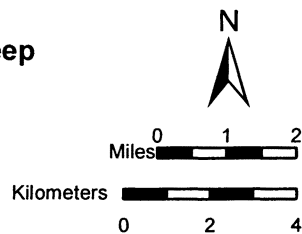
401226, 4016898; 401164, 4016998;
 401067, 4017066; 400906, 4017170;
 400742, 4017175; 400640, 4017047;
 400342, 4016991; 400311, 4017057;
 400313, 4017123; 400383, 4017252;
 400419, 4017349; 400455, 4017446;
 400490, 4017511; 400525, 4017575;
 400592, 4017638; 400597, 4017769;
 400471, 4017970; 400179, 4018077;
 399917, 4018118; 399692, 4018256;
 399663, 4018388; 399666, 4018487;
 399735, 4018583; 399935, 4018675;
 399939, 4018806; 399745, 4018910;
 399617, 4019012; 399357, 4019119;
 398800, 4019169; 398672, 4019272;
 398480, 4019441; 398298, 4019906;
 398237, 4020072; 398082, 4020371;
 397992, 4020636; 397996, 4020767;
 398000, 4020898; 398005, 4021062;
 398011, 4021226; 398122, 4021648;
 398191, 4021744; 398332, 4022035;
 398442, 4022392; 398584, 4022748;
 398657, 4022975; 398663, 4023171;
 398935, 4023458; 399006, 4023619;
 399074, 4023683; 399072, 4023617;
 399110, 4023780; 399181, 4023941;
 399119, 4024074; 399094, 4024337;
 399000, 4024471; 398813, 4024805;
 398716, 4024841; 398527, 4025109;
 398467, 4025275; 398472, 4025438;
 398510, 4025601; 398514, 4025732;
 398553, 4025927; 398622, 4026023;
 398722, 4026086; 398791, 4026182;
 398928, 4026341; 399031, 4026502;
 399002, 4026634; 398945, 4026898;
 399113, 4027024; 399214, 4027086;
 399283, 4027182; 399254, 4027314;
 399194, 4027513; 399136, 4027744;
 399140, 4027875; 399143, 4027973;
 399180, 4028103; 399218, 4028266;
 399226, 4028527; 399329, 4028655;
 399466, 4028815; 399568, 4028943;
 399902, 4029096; 399971, 4029225;
 400106, 4029319; 400270, 4029314;
 400401, 4029310; 400666, 4029367;
 400864, 4029393; 400930, 4029391;
 400995, 4029389; 401356, 4029378;
 401586, 4029371; 401783, 4029365;
 402145, 4029386; 402443, 4029442;
 402676, 4029533; 403004, 4029523;
 returning to 403133, 4029453.

(ii) Note: Map of Unit 12 (Olancha Peak) for Sierra Nevada bighorn sheep (Map 13) follows:

MAP 13 - Unit 12
Critical Habitat for Sierra Nevada Bighorn Sheep
(Ovis canadensis californiana)
 Inyo and Tulare Counties, California



-  Critical Habitat for Sierra Nevada Bighorn Sheep
-  County Boundaries
-  Rivers/Streams
-  Pacific Crest National Scenic Trail
-  Highways/Roads
-  Lakes



* * * * *

Dated: July 17, 2007.

Todd Willens,

*Acting Assistant Secretary for Fish and
Wildlife and Parks.*

[FR Doc. 07-3591 Filed 7-24-07; 8:45 am]

BILLING CODE 4310-55-C