



## U. S. Fish & Wildlife Service

### Nevada Fish and Wildlife Office

*Conserving the Biological Diversity of the Great Basin, Eastern Sierra, and Mojave Desert*

#### Sierra Nevada Bighorn Sheep Designation of Critical Habitat and Taxonomic Revision

**Description of the species:**

The Sierra Nevada bighorn sheep is a large mammal in the family Bovidae. They inhabit open upland, montane, and alpine habitats with rocky areas along the eastern slope of the Sierra Nevada from about 4,000 feet to approximately 14,500 feet. Most of the sheep live at higher elevations in the subalpine and alpine areas during the summer. To avoid deep snow and to find forage during winter, the sheep either occupy high elevation windswept ridges or migrate to lower elevation sagebrush-steppe habitats. Bighorn sheep are primarily grazers, consuming various plants such as needlegrasses, currant, sagebrush, bitterbrush, buckwheats, and sedges depending on season and location. Sierra Nevada bighorn sheep are diurnal and gregarious with group size and composition depending on gender and season.

**Q. What action is the Fish and Wildlife Service (Service) taking?**

**A.** The Service is designating 417,577 acres of critical habitat for the Sierra Nevada bighorn sheep, an endangered species protected under the federal Endangered Species Act.

Based on recently published genetic and morphometric data the Service is also revising the scientific name of the bighorn sheep in the Sierra Nevada from *Ovis canadensis californiana* to *Ovis canadensis sierrae*.

**Q. Why is the Service designating critical habitat?**

**A.** On April 20, 1999, the Service published an emergency rule and concurrent proposed rule listing the Sierra Nevada population of California bighorn sheep under the Endangered Species Act as an endangered distinct population segment. On January 3, 2000, a final rule was published listing the Sierra Nevada bighorn sheep as endangered.

The Service was subsequently challenged on the failure to designate critical habitat and have reached a settlement agreement with The Center for Biological Diversity to submit a proposed rule for the designation of critical habitat for the Sierra Nevada bighorn sheep to the *Federal Register* by July 17, 2007. A final rule was to be submitted by July 17, 2008.

**Q. What is critical habitat?**

**A.** Critical habitat is a term in the Endangered Species Act. It designates geographic areas that contain features essential for the conservation of a threatened or endangered species and require special management considerations or protection. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve or other conservation area. It does not allow government or public access to private lands. Critical habitat has no regulatory impact on private landowners taking actions on their land, unless they are doing something that requires federal funding, authorization or permits. However, landowners must consult with the Service before taking actions on their property that could harm or kill Sierra Nevada bighorn sheep or destroy their occupied habitat, regardless of whether critical habitat has been designated.

Critical habitat is determined after taking into consideration the economic impact it could cause, as well as any other relevant impacts. The Secretary of the Interior may exclude any area from critical habitat if the benefits of exclusion outweigh the benefits of inclusion, as long as the exclusion would not result in the extinction of the species.

**Q. What is being designated as critical habitat for Sierra Nevada bighorn sheep?**

**A.** Approximately 417,577 acres of the species essential habitat (primary constituent elements) which include the following:

(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 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.

**Q. What are the potential costs associated with the designation of critical habitat?**

**A.** The draft economic analysis estimated potential costs for conservation activities to be approximately \$27.4 million and costs associated solely with the designation of critical habitat to be approximately \$149,000 over a 20-year period in areas designated as critical habitat.

**Q. What counties are included in critical habitat designation?**

**A.** The following counties have some areas designated as critical habitat for Sierra Nevada bighorn sheep: Tuolumne, Mono, Fresno, Inyo, and Tulare counties in California.

**Q. What is the ownership of the land being designated critical habitat?**

**A.** The land ownership includes:

- Federal: 416,407 acres
- Private: 1,005 acres
- Local Government: 165 acres

**Q. How did the Service determine what should be included as critical habitat for Sierra Nevada bighorn sheep?**

**A.** Critical habitat for Sierra Nevada bighorn sheep was delineated using information provided in the Sierra Nevada bighorn sheep recovery plan and is based on principles of conservation biology. The recovery plan was developed with the assistance of federal, state, and local agencies as well as numerous other stakeholders.

All the areas of critical habitat for Sierra Nevada bighorn sheep are within the historic geographic range of the species and contain enough of the physical or biological features (primary constituent elements) essential to the conservation of the species. Primary constituent elements are physical and biological features that are essential to the conservation of the species. These include, but are not limited to space for individual and population growth and normal behavior; food, water, or other nutritional or physiological requirements; cover or shelter; sites for breeding, reproduction, or rearing of offspring; and habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

**Q. Did the Service designate any areas where Sierra Nevada bighorn sheep don't currently occur?**

**A.** Yes. The Service included areas that were not known to be occupied at the time of listing, and are currently unoccupied, but that have been determined to be essential to the conservation of the species. Because Sierra Nevada bighorn sheep occupy suitable habitat surrounded by less suitable or unsuitable habitat based on topography, vegetation structure, biology, and behavior, their distribution is naturally fragmented. Additional areas of historic habitat are proposed to maintain ecosystem integrity, ensure that there is sufficient habitat to support viable populations of bighorn sheep and provide a sufficiently large and dispersed population to reduce the possible impact of disease or other events.

**Q. How many acres are being designated in each critical habitat unit?**

**A.** The 417,577 acres of designated critical habitat is divided into twelve units that include federal, private and local land. The area divisions are as follows:

<b>Area/Unit</b>	<b>Federal</b>	<b>Private</b>	<b>Local Government</b>	<i>Total</i>
Mt. Warren	35,279	568	165	36,013
Mt. Gibbs	29,702			29,702
Convict Creek	36,497	17		36,514
Wheeler Ridge	80,568	398		80,966
Taboose Creek	28,805			28,805
Sawmill Canyon	30,508			30,508
Mt. Baxter	32,198	22		32,220
Mt. Williamson	32,560			32,560
Big Arroyo	24,987			24,987
Mt. Langley	32,845			32,845
Laurel Creek	22,037			22,037
Olancha Peak	30,421			30,421
<b>TOTAL</b>	<b>416,407</b>	<b>1,005</b>	<b>165</b>	<b>417,577</b>

**Q. Who will be affected by a critical habitat designation?**

**A.** Federal agencies are required to consult with the Service on actions they carry out, fund or authorize that might affect critical habitat. It is important to note that in most cases, consultation is already occurring under the section 7 interagency consultation requirements of the Endangered Species Act in the absence of designated critical habitat.

**Q. Did the Service receive any public comments on the proposal to designate critical habitat?**

**A.** Yes. The Service received 28,181 comments from the public and peer reviewers. We solicited expert opinions from three knowledgeable peers with scientific expertise that included familiarity with the species, and conservation biology principles. We received responses from two peer reviewers. In general, the peer reviewers concurred with our methods and conclusions and provided suggestions to improve the final critical habitat rule.

We reviewed all comments received from the peer reviewers and the public for substantive issues and new information regarding critical habitat for the Sierra Nevada bighorn sheep. We consolidated like comment, addressed them in a summary published in the *Federal Register*, and incorporated them into the final rule as appropriate.

**Q. Did the final rule change based on the comments received?**

**A.** Yes. In preparing the final critical habitat designation for Sierra Nevada bighorn sheep, we reviewed and considered comments from peer reviewers and the public on the proposed designation published on July 25, 2007, and the draft economic analysis

published on February 5, 2008. This final rule differs from the proposed rule as follows:

We made changes in the following sections of the proposed rule: Background, Previous Federal Actions, Primary Constituent Elements, Criteria Used to Identify Critical Habitat, Special Management Considerations or Protections, and Critical Habitat Designation. These changes included corrections or new information or clarification on Sierra Nevada bighorn sheep biology; use of final recovery plan information; disease, livestock grazing, and recreational activities; and landmarks used in unit descriptions.

**Q. How long does a critical habitat designation remain in effect?**

**A.** A critical habitat designation remains in effect until the species is considered to be recovered, and is removed from the list of threatened or endangered species.

A copy of the rule and other information about Sierra Nevada bighorn sheep is available on the Internet at <http://www.regulations.gov> or <http://www.fws.gov/nevada> or by contacting Bob Williams at (775) 861-6300.