FINAL ENVIRONMENTAL DOCUMENT

Section 363, Title 14, California Code of Regulations

Regarding

Pronghorn Antelope Hunting

April 12, 2004

STATE OF CALIFORNIA
THE RESOURCES AGENCY
DEPARTMENT OF FISH AND GAME
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CHAPTER 1. SUMMARY

State law (Section 207 of the Fish and Game Code) requires the Fish and Game Commission (Commission) to review mammal hunting regulations at least once every three years and the Department of Fish and Game (Department) to present recommendations for changes to the mammal hunting regulations to the Commission at a public meeting. However, during any year, the Commission may receive proposals from the Department for changes in mammal hunting regulations. If any major changes occur, the Department will issue a supplemental, amended, or subsequent document in order to present the issues to the Commission. Possible subject matters that may require an amendment include tag quotas based on biological population performance, emergency maintenance of resources, and for content clarity. Mammal hunting regulations adopted by the Commission provide for hunting pronghorn antelope (Antilocapra americana) in specific areas of the State [Section 363, Title 14, California Code of Regulations (CCR)]. The project discussed in this document (proposed project) involves pronghorn antelope hunting for 2004 (Section 331, Fish and Game Code, see Appendix 1).

Existing law (Section 3950, Fish and Game Code) designates pronghorn antelope as a game mammal in California. Section 331, Fish and Game Code, provides that the Commission may fix the area or areas, seasons and hours, bag and possession limit, sex, and total number of pronghorn antelope that may be taken pursuant to its regulations. Section 203.1, Fish and Game Code, requires the Commission to consider populations, habitat, food supplies, the welfare of individual animals, and other pertinent facts when establishing hunting regulations for pronghorn antelope.

PROPOSED PROJECT

The proposed project being considered is a proposal to continue regulated hunting as an element of pronghorn antelope management. Regulated pronghorn antelope hunting is proposed for northeastern and central California, including parts of Lassen, Modoc, Plumas, Shasta, Siskiyou, Kern, and Los Angeles counties (figures 1-6) during 2004. Objectives of the proposal are to maintain a viable and healthy statewide pronghorn antelope population and to provide biologically appropriate hunting opportunities.

Specifically, the proposed project provides a tag allocation range (Table 1) based on results from the 2003 annual winter survey, during which a minimum of 3,973 pronghorn was determined to inhabit northeastern California. Tag allocations in Table 1 describe three possible ranges for each zone. The conservative range will be recommended when the statewide pronghorn populations is less than 5,700 animals. The moderate range will be recommended at a statewide pronghorn populations level of 5700-6700 animals. The maximum range will be recommended when the statewide...
FIGURE 1

Pronghorn 2004 Hunt Zone 1 - Mount Dome

Mount Dome

Pronghorn

2004 Hunt Zone 1
FIGURE 2
Pronghorn 2004 Hunt Zone 2 - Clear Lake

Map showing the boundary of Pronghorn 2004 Hunt Zone 2 around Clear Lake in California.
FIGURE 5
Pronghorn 2004 Hunt Zone 5 - Big Valley

T771 Hunt Zone
LJJ County Boundary
Public Lands
Primary Highway
Secondary Highway
Road or Street

US Interstate
US Highway
CA State Highway

0 5 10 15 20
Pronghorn 2004 Hunt Zone 6 - Surprise Valley

Oregon
California

Pronghorn
2004
Hunt Zone 6
Surprise Valley

Modoc
Lassen

Area Shown

Hunt Zone
County Boundary
Public Lands
US Interstate
Primary Highway
US Highway
Secondary Highway
CA State Highway
Road or Street

0 5 10 15 20 Miles
Figure 7
Pronghorn Antelope Private Lands Management Areas

1. Basin View Ranch
2. SL Ranch
3. Lookout Ranch
4. PBM Farms
5. Cloud's Willow Creek
6. Tom's Creek Ranch
7. Prather Ranch
8. Clarks Valley Red Rock Ranch
9. Ratliff Ranch
10. Mendiboure Ranch
11. Rancho Garate
12. Spanish Springs Ranch
13. Dillon Lakes
14. 5 Dot Ranch, Horse Lake
15. 5 Dot Ranch, Willow Creek
16. 5 Dot Ranch, Avilla
17. Tejon Ranch
Figure 8
Historic and Present Distribution of Pronghorn Antelope
pronghorn population level exceeds 6700 animals. The proposed project is expected to involve tag quotas within the conservative range for each zone (Table 1). The Department recommends that the Commission adopt a final pronghorn tag quota for 2004 that is within the ranges identified in Table 1 and based on results of the 2004 winter survey (scheduled for late January 2004). The Department analyzed the proposed project and various alternatives and concluded that they will not have a significant adverse impact on the environment.

Based on recommendations from the Department, other agencies, and the public, the Commission may adopt mammal hunting regulations that include pronghorn antelope. In adopting regulations providing for pronghorn antelope hunting, the Commission would be acting pursuant to sections 203, 203.1, 207, 331, 3400-3409, and 3950, Fish and Game Code. The Commission's action would also be consistent with the wildlife conservation policy adopted by the Legislature (Section 1801, Fish and Game Code). The State's wildlife conservation policy contains an objective of providing regulated hunting of wildlife resources where such use is consistent with maintaining healthy and viable wildlife populations.

The Department is recommending that the Commission adopt regulations that provide for limited pronghorn antelope in California. The Department is recommending tag allocations within the ranges listed in Table 1 for each hunt area with the following seasons: archery-only, general, junior, and fund-raising hunts. Based on historic quotas from the past five years, the Department expects that tag quota for 2004 will fall within the conservative harvest range (proposed project).

The proposed project includes the renaming and resetting of boundaries for two junior hunts, and an addition of a third. Existing regulations specify boundaries, season dates, bag/possession limits and the quota for the Ash Creek Junior Pronghorn Antelope Hunt. To improve hunter opportunity and better manage pronghorn antelope, the proposal expands hunt boundaries and extends the season to coincide with boundaries and general season dates for Zone 5 - Big Valley. It renames the hunt as the Big Valley Junior Pronghorn Antelope Hunt. Existing regulations specify boundaries, season dates, bag/possession limits and the quota for Honey Lake Junior Pronghorn Antelope Hunt. To improve hunter opportunity and better manage pronghorn antelope, the proposal expands hunt boundaries and extends the season to coincide with boundaries and general season dates for Zone 4 - Lassen. Because the proposal expands hunt boundaries beyond the Honey Lake Wildlife Area, it renames the Hunt as the Lassen Junior Pronghorn Antelope Hunt. Existing regulations make no provision for a Junior Pronghorn Antelope Hunt in Zone 6 - Surprise Valley. The proposal establishes the Surprise Valley Jr. Pronghorn Antelope hunt with boundaries and season dates that coincide with those for Zone 6 - Surprise Valley.

Additionally, up to 120 pronghorn antelope tags will be considered under the Private Lands Wildlife Habitat Enhancement and Management Area (PLM) Program (pursuant to sections 3400-3409, Fish and Game Code, and Section 601, Title 14,
The resulting harvest for 2004 will likely be lower than the tag allocation (see Table 1), because hunter success historically has been less than 100 percent. Based on success rates from previous years, the Department expects that the actual harvest will range from 70-80 percent of the pronghorn antelope tag allocation for 2004 (1980-present, Department of Fish and Game data on file in the Wildlife and Inland Fisheries Division, Sacramento, California).

Maximum levels in Table 1 represent the maximum allowable harvest based on an estimated pronghorn antelope population above 6,700 within in the proposed project area. In recent years, post-hunt surveys occurred in the winter and fall and provided a minimum estimate from which to model the current year’s tag allocation. It is anticipated that updated population data for 2004 will be available in February to provide the basis for a final tag allocation for 2004.

For northeastern California, the desired population management objective is to maintain a population of 5,600-7,000 pronghorn antelope. A post-hunt buck ratio of at least 24 bucks per 100 does is expected. Population objectives are determined based on the estimated carrying capacity of the available range, productivity of the population (number of fawns produced per 100 does), occurrence and severity of property damage problems, and general health and condition of the animals. The goal statewide is to maintain viable, healthy pronghorn antelope populations with a post-hunt objective ratio of at least 24 bucks per 100 does (see "Project Objectives" section). For PLM areas, an additional goal is to enhance private lands for diverse wildlife species.

The Department is also providing the Commission with a range of alternatives to the proposed project that could feasibly attain the basic objectives of the project. Alternative 1 (no change) would maintain quotas and seasons for each hunt zone without change. Alternative 2 (increased harvest) involves issuing approximately 50 percent more pronghorn antelope license tags than the proposed project. Alternative 3 (reduced harvest) involves issuing approximately 50 percent fewer pronghorn antelope license tags than the proposed project. Except for the junior hunts, this alternative would involve a buck-only harvest. Alternative 4 (increased archery) provides an increased level of archery-only hunting compared to the proposed project. This alternative would increase the archery-only pronghorn antelope tag allocation by approximately 10 percent and reduce the number of general season tags. Alternative 5 (no hunting) would prohibit pronghorn antelope hunting. This alternative would maintain other management activities, such as translocation, at their present level.
EFFECTS ON THE ENVIRONMENT

Table 2 summarizes Department findings that there are no significant long-term adverse impacts associated with the proposed project or any of the project alternatives.

Table 2. Impact Summary:
Proposed Project and Alternative for the 2003 Pronghorn Antelope Hunting Regulations

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Significant impact</th>
<th>Nature of Impact</th>
<th>Mitigation Available</th>
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<tr>
<td>No Change</td>
<td>No</td>
<td>None</td>
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<td>N/A</td>
</tr>
<tr>
<td>Increased Harvest</td>
<td>No</td>
<td>None</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Reduced Harvest (Bucks Only)</td>
<td>No</td>
<td>None</td>
<td>N/A</td>
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<tr>
<td>Increased Level of Archery-Only Hunting</td>
<td>No</td>
<td>None</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>No Hunting</td>
<td>No</td>
<td>None</td>
<td>N/A</td>
<td>N/A</td>
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PUBLIC INPUT AND AGENCY CONSULTATION

The California Environmental Quality Act (CEQA) encourages public input. One of the primary purposes of the environmental document review process is to obtain public comment, as well as to inform the public and decision makers. It is the intent of the Department to encourage public participation in this environmental review process.

Prior to preparing this environmental document, the Department developed a Notice of Preparation (NOP). In early December, 2003 the NOP was provided to the State Clearinghouse for distribution, as well as to land management agencies in California that have an interest, or play a key role, in pronghorn antelope management [including the U.S. Fish and Wildlife Service (USFWS), Bureau of Land Management (BLM), National Park Service (NPS), and U.S. Forest Service (USFS)]. This NOP was also provided to individuals and/or organizations which expressed an interest in pronghorn antelope management in the past. The NOP requested that any comments regarding the scope of the environmental document be submitted to the Department within 30 days of receipt of the NOP.

The Department has also encouraged public input into the environmental document by scheduling a scoping session to discuss documents prepared in support of mammal hunting and trapping regulations. This scoping session was held in Sacramento on December 11, 2003.
The Department prepared a draft environmental document (DED) regarding pronghorn antelope management (Section 363, Title 14, CCR). The DED was made available for public review on February 2, 2004. It was mailed to 20 individuals and organizations who expressed interest in this issue. The individuals and organizations which received the DED are listed in Appendix 2. Additionally, notice of availability of the DED for public review was provided to the State Clearinghouse, which provided notice of availability to over 880 organizations, including all county governments in California. Notice of availability was also published in 24 major California newspapers. Each of the 24 newspapers has a daily circulation exceeding 50,000. The DED was also made available in the Department’s six regional offices and in the Department’s Bishop, Eureka, Menlo Park, and San Diego satellite offices. During the 45-day notice period the draft environmental document was available for public review and no comments were received regarding the document. Also, a letter was received from Ms. Terry Roberts, Senior Planner, State Clearinghouse, noting that the Department had complied with the CEQA review requirements for the draft environmental document and that no State agency comments were received.

AREAS OF CONTROVERSY

The Department recognizes that hunting has become a controversial issue opposed by some members of the public because it results in the death of individual animals. On the other hand, hunting provides recreation and food for hunters, and serves as a component of wildlife management. This document addresses the range of public viewpoint (from no hunting to maximum hunting opportunity), as well as intermediate alternatives for managing pronghorn antelope. The areas of controversy that are considered include effects on threatened and endangered species, effects of drought and wildfires, effects of illegal take, effects on individual animals, method of take (e.g., archery equipment), and other factors (see Chapter 4).

ISSUES TO BE RESOLVED

As provided by existing law, the Commission is the decision-making body (lead agency) considering the proposed project, while the Department has responsibility for management activities, such as hunting, translocating pronghorn antelope to suitable historic range, and preparing management plans. It is expected that pronghorn antelope hunts would be considered by the Commission at least once every three years. The primary issue for the Commission to resolve is whether to change pronghorn antelope hunting regulations as an element of pronghorn management. If such changes are authorized, the Commission will specify the areas, seasons, methods of take, bag and possession limit, number of pronghorn antelope to be taken, and other appropriate special conditions.

As proposed, pronghorn antelope hunting (including PLM hunts) would not be independent of other management elements, including providing public viewing opportunities, translocation of animals, natural history study, and interpretive programs.
related to pronghorn antelope. Also, hunting could be used in conjunction with translocation to maintain desired population objectives.

CONCLUSION

Adoption of the proposed project by the Commission will result in the death of individual animals. However, surviving individuals in a population may benefit from decreased competition for food and space. Specific safeguards included in the proposed action, such as a limited tag quota, a short season, a public bag limit of one, and close monitoring of the pronghorn antelope population with annual surveys and herd composition counts, should result in a conservative level of hunting mortality. Most significantly, the proposed levels of pronghorn antelope hunting are based on minimum population estimates, age and sex compositions, and pronghorn distribution within hunt zones or areas. Department pronghorn antelope surveys typically underestimate the actual number of animals within an area. Therefore, the proposed tag quotas are biologically conservative, and the removal of individual animals from selected herds (areas) that are considered large and healthy is not expected to significantly reduce population numbers. The proposed project is designed to maintain the herds within the project objectives discussed in this environmental document and the Northeastern California Pronghorn Antelope Management Plan (Department files, Sacramento, California).

Long-term data indicate that production and survival of young animals can replace the animals removed by hunting. The proposed hunting of pronghorn antelope involves a limited number of tags designated for specific areas of California (figures 1-6), and the removal of individual animals will have little influence on the statewide population. Tags will be allocated based on estimated population size, the distribution of pronghorn antelope in the proposed project area, expected hunter success, non-hunting mortality, and the estimated range carrying capacity. The proposed project, which could potentially remove a maximum number of animals as stated in Table 1, is not expected to have a significant adverse impact on either local or statewide populations of pronghorn antelope. The project is expected to only temporarily reduce the number of pronghorn antelope in the project area. The proposed project is consistent with pronghorn management objectives and will help maintain herds in balance with their habitat throughout the State, while providing recreational opportunities for hunters.

The Department's primary management objectives are to conserve and enhance pronghorn antelope and their habitat for the benefit and enjoyment of the people of California; and to maintain healthy, viable pronghorn antelope populations statewide. Pronghorn antelope management guidelines and objectives are discussed in detail in two documents: The Pronghorn Antelope in Northeastern California (Pyshora 1977) and the Northeastern California Pronghorn Antelope Management Plan (Department files, Sacramento, California). These documents were developed to provide management recommendations for pronghorn antelope in northeastern California and to update information on pronghorn antelope translocated to historic range.
CHAPTER 2. PROJECT DESCRIPTION

Management of pronghorn antelope in California is guided by State law, policies of the Commission, and the Department. The underlying goal of pronghorn antelope management is to encourage the conservation, restoration, maintenance, and utilization of the State's pronghorn antelope populations (Section 1801, Fish and Game Code). More specifically, long-term objectives for managing pronghorn antelope in California were developed by the Department (see "Project Objectives").

Discussed in this document is pronghorn antelope hunting. The Department has established specific objectives for population numbers (Northeastern California Pronghorn Management Plan, Department files, Sacramento, California). These objectives are determined based on carrying capacity of the available range, productivity of the population, occurrence and severity of property damage problems, and general health and condition of the animals. These factors were considered in developing the project objectives described in this chapter. Hunting is expected to help dampen the normal, and often large, fluctuations in pronghorn antelope populations that can occur as a result of environmental variation. Hunting is also used to reduce damage to private property, while providing recreational opportunity for some Californians.

PROPOSED PROJECT

The Department proposes to use public hunting to manage pronghorn antelope and provide recreational opportunities. The Department is recommending that the Commission adopt regulations that will provide for limited pronghorn antelope hunting in specific public hunt areas and up to 17 PLM's in California (figures 1-7). Tag quotas for 2004 are based on minimum population estimates, distribution within the proposed project area, mortality, average hunter success, and State law (Section 331, Fish and Game Code).

The proposed project continues hunting as an element of the Department's pronghorn antelope management program. The proposed project is intended to provide a valid recreational opportunity and serve as a mechanism to help maintain population numbers within established objectives or alternatively, to achieve established objectives. The proposed project implements sections 331 and 1801, Fish and Game Code (see Appendix 1 and Department files), as they apply to pronghorn antelope. Pronghorn antelope hunting will not be proposed if the Department determines that pronghorn antelope numbers have declined to a level which may not sustain a healthy and viable population. Regulated hunting is proposed in addition to other management activities that may provide non-consumptive uses of pronghorn antelope. As proposed, hunting is not expected to affect these activities.
The environmental document is intended to provide the Commission and the public with information necessary to evaluate the potential environmental impacts of pronghorn antelope hunting. Although the proposed project considers pronghorn antelope hunting, other aspects of pronghorn antelope management are important to consider. Therefore, this environmental document also addresses other aspects of pronghorn antelope management as they relate to the proposed project and alternatives.

PROJECT LOCATION

The proposed project is located in those portions of Modoc, Lassen, Siskiyou, Shasta, Plumas, and Los Angeles counties described as northeastern California pronghorn antelope hunting zones 1-6, and PLM areas (figures 1-7). The proposed project provides for public hunt areas as follows:

Zone 1: Mount Dome (Figure 1): That portion of Siskiyou County within a line beginning at the junction of Interstate 5 and the California-Oregon state line; east along the California-Oregon state line to the Ainsworth Corners-Lava Beds National Monument Road; south along the Ainsworth Corners-Lava Beds National Monument Road to the Mammoth Crater-Medicine Lake Road; southwest along the Mammoth Crater-Medicine Lake Road to the Medicine Lake-Telephone Flat Road; east and south along the Medicine Lake-Telephone Flat Road to the Telephone Flat-Bartle Road; southwest along the Telephone Flat-Bartle Road to Highway 89; west along Highway 89 to Interstate 5; north along Interstate 5 to the point of beginning.

The Mount Dome area contains 1,518,299 acres of land, of which about half is private and half is public. Primary land uses are livestock grazing and timber production. Development of irrigation has promoted more agricultural crops in this zone, primarily alfalfa and grain. These agricultural developments are highly sought out by pronghorn antelope and have mixed benefits. Pronghorn antelope use of crops as forage can improve the diet, but can also result in increasing the local population above carrying capacity of the native range. Only minor changes in land-use patterns are expected in the next 10 years because of the fairly stable agricultural economy in the project area.

Zone 2: Clear Lake (Figure 2): Those portions of Modoc and Siskiyou counties within a line beginning at the junction of the Lava Beds National Monument Road and the California-Oregon state line at Ainsworth Corners; east along the California-Oregon state line to the Crowder Flat Road; south along the Crowder Flat Road to Modoc County Road 73; south along Modoc County Road 73 to Modoc County Road 136; west along Modoc County Road 136 to the Blue Mountain-Mowitz Road; west and south along the Blue Mountain-Mowitz Road to the Deadhorse Flat-Badger Well Road; southwest along the Deadhorse Flat-Badger Well Road to the Badger Well-Browns Well Road; south along the Badger Well-Browns Well Road to the Sorholus Tank-Hackamore Road; southwest along the Sorholus Tank-Hackamore Road to Highway 16.
139; southeast along Highway 139 to Modoc County Road 91; south along Modoc County Road 91 to the Mud Lake-Mud Springs Road; west along the Mud Lake-Mud Springs Road to the North Main Road; southwest along the North Main Road to the Long Bell-Iodine Prairie Road at Long Bell Forest Service Station; northwest along the Long Bell-Iodine Prairie Road to the Bartle-Telephone Flat Road; north along the Bartle-Telephone Flat Road to the Telephone Flat-Medicine Lake Road; north and west along the Telephone Flat-Medicine Lake Road to the Medicine Lake-Mammoth Crater Road; northeast along the Medicine Lake-Mammoth Crater Road to the Lava Beds National Monument-Ainsworth Corners Road; north along the Lava Beds National Monument-Ainsworth Corners Road to the point of beginning.

The Clear Lake zone contains 715,573 acres of land, of which about 86 percent is public and 14 percent is private. Grazing and farming are the primary uses on private land and, in some instances, can be beneficial to pronghorn antelope. In the past, the Clear Lake population has provided surplus pronghorn antelope for translocation. Future land-use practices likely will enhance conditions for pronghorn antelope because of increased agricultural production.

Zone 3: Likely Tables (Figure 3): Those portions of Modoc and Lassen counties within a line beginning at the junction of the Crowder Flat Road and the California-Oregon state line; east along the California-Oregon state line to the crest of the Warner Mountains; south along the crest of the Warner Mountains to the Summit Trail at Pepperdine Camp; south along the Summit Trail to the South Warner Road near Patterson Forest Service Station; west along the South Warner Road to the Long Valley-Clarks Valley Road; south along the Long Valley-Clarks Valley Road to the Clarks Valley-Madeline Road; west along the Clarks Valley-Madeline Road to Highway 395 at the town of Madeline; north along Highway 395 to the Madeline-Adin Road; northwest along the Madeline-Adin Road to the Hunsinger Draw-Sweagert Flat Road; east and north along the Hunsinger Draw-Sweagert Flat Road to the Sweagert Flat-Hunters Ridge Road; north and west along the Sweagert Flat-Hunters Ridge Road to Highway 299 near Lower Rush Creek Recreation Site; north along Highway 299 to the Canby Bridge-Cottonwood Flat Road; northwest along the Canby Bridge-Cottonwood Flat Road to the Cottonwood Flat-Happy Camp Road; northwest along the Cottonwood Flat-Happy Camp Road to Modoc County Road 91; north along Modoc County Road 91 to Highway 139; north along Highway 139 to the Hackamore-Sorholus Tank Road; northeast along the Hackamore-Sorholus Tank Road to the Browns Well-Badger Well Road; north along the Browns Well-Badger Well Road to the Badger Well-Deadhorse Flat Road; northeast and east along the Badger Well-Deadhorse Flat Road to the Mowitz-Blue Mountain Road; north and east along the Mowitz-Blue Mountain Road to Modoc County Road 136; east along Modoc County Road 136 to Modoc County Road 73; north along Modoc County Road 73 to the Crowder Flat Road; north along the Crowder Flat Road to the point of beginning.
The Likely Tables zone contains 1,453,692 acres of land, of which about 70 percent is public and 30 percent is private. Grazing and alfalfa production are primary agricultural uses. Urban expansion in the Alturas area has eliminated a few square miles of pronghorn antelope range, but with more than one million acres of public land, impacts of urbanization are not yet significant in the Likely Tables zone.

Zone 4: Lassen (Figure 4): Those portions of Lassen, Plumas, and Shasta counties within a line beginning at the junction of Highway 36 and the Juniper Lake Road in the town of Chester; north along the Juniper Lake Road to the Lassen National Park boundary; north and west along the Lassen National Park boundary to Highway 89; north along Highway 89 to U.S. Forest Service Road 22 near the Hat Creek Ranger Station; east along U.S. Forest Service Road 22 to U.S. Forest Service Road 35N06; east and north along U.S. Forest Service Road 35N06 to the State Game Refuge 1S boundary; northwest along the State Game Refuge 1S boundary to the Coyote Canyon-Dixie Valley Road; northwest along the Coyote Canyon-Dixie Valley Road to the Dixie Valley-Boyd Hill Road; northwest along the Dixie Valley-Boyd Hill Road to the Snag Hill-Hayden Hill Road; northeast and north along the Snag Hill-Hayden Hill Road to Highway 139; southeast on Highway 139 to the Willow Creek-Hunsinger Flat Road; northeast and northwest along the Willow Creek-Hunsinger Flat Road to the Adin-Madeline Road; northeast and northwest along the Adin-Madeline Road to Highway 395 at the town of Madeline; south along Highway 395 to the Madeline-Clarks Valley Road; east along the Madeline-Clarks Valley Road to the North Main Road and the Mud Springs-Mud Lake Road to Modoc County Road 91; south along Modoc County Road 91 to the Happy Camp-Cottonwood Flat Road; southeast along the Happy Camp-Cottonwood Flat Road

The Lassen zone contains 2,579,115 acres of land, of which about 60 percent is public and 40 percent is private. Primary land uses are farming and timber production. Pronghorn antelope in this area were severely reduced in number during the winter of 1951-52. The population subsequently recovered, but sharply declined again during the 1992-93 winter. High-quality summer forage, such as on agricultural lands, is not prevalent in this zone. Pronghorn antelope in this zone are more reliant on native range compared to animals in other zones. Because of this, their numbers are expected to vary more with changing environmental conditions.

Zone 5: Big Valley (Figure 5): Those portions of Modoc, Lassen, Shasta, and Siskiyou counties within a line beginning at the intersection of highways 299 and 89; north and northwest along Highway 89 to the Bartle-Telephone Flat Road; northeast along the Bartle-Telephone Flat Road to the Iodine Prairie-Long Bell Road; southeast along the Iodine Prairie-Long Bell Road to the North Main Road at Long Bell Forest Service Station; northeast along the North Main Road and the Mud Springs-Mud Lake Road to Modoc County Road 91; south along Modoc County Road 91 to the Happy Camp-Cottonwood Flat Road; southeast along the Happy Camp-Cottonwood Flat Road
to the Cottonwood Flat-Canby Bridge Road; southeast along the Cottonwood Flat-
Canby Bridge Road to Highway 299; south along Highway 299 to the Hunters Ridge-
Sweagert Flat Road near Lower Rush Creek Recreation Site; east and south along the
Hunters Ridge-Sweagert Flat Road to the Sweagert Flat-Hunsinger Draw Road; south
and west along the Sweagert Flat-Hunsinger Draw Road to the Adin-Madeline Road;
southeast along the Adin-Madeline Road to the Hunsinger Flat-Willow Creek Road;
southeast and southwest along the Hunsinger Flat-Willow Creek Road to Highway 139;
northwest along Highway 139 to the Hayden Hill-Snag Hill Road; south and southwest
along the Hayden Hill-Snag Hill Road to the Boyd Hill-Dixie Valley Road; southeast
along the Boyd Hill-Dixie Valley Road to the Dixie Valley-Coyote Canyon Road;
southeast along the Dixie Valley-Coyote Canyon Road to the State Game Refuge 1S
boundary; southeast along the State Game Refuge 1S boundary to U.S. Forest Service
Road 35N06; south and west along U.S. Forest Service Road 35N06 to U.S. Forest
Service Road 22; west along U.S. Forest Service Road 22 to Highway 89 near the Hat
Creek Ranger Station; north along Highway 89 to the point of beginning.

The Big Valley zone contains 1,145,627 acres of land, of which about 34 percent
is public and 66 percent is private. Agricultural production is high. Alfalfa, grain, and
irrigated crops are predominant and the potential to provide food for pronghorn
antelope is artificially high, because much of the habitat has been altered by agricultural
development. Pronghorn antelope numbers declined sharply in this zone as a result of
the 1992-93 winter.

Zone 6: Surprise Valley (Figure 6): Those portions of Modoc and Lassen
counties within a line beginning at the intersection of the crest of the Warner Mountains
and the California-Oregon state line; east along the California-Oregon state line to the
California-Nevada state line; south along the California-Nevada state line to the
Tuledad-Clarks Valley Road; west and northwest along the Tuledad-Clarks Valley Road
to the Clarks Valley-Long Valley Road; north on the Clarks Valley-Long Valley Road to
the South Warner Road; east along the South Warner Road to the Summit Trail near
Patterson Guard Station; north along the Summit Trail to the crest of the Warner
Mountains at Pepperdine Camp; north along the crest of the Warner Mountains to the
point of beginning.

The Surprise Valley zone contains 522,746 acres of land, of which about 85
percent is public and 15 percent is private. Livestock grazing and hay production are
the primary uses of private land. Agricultural production is high with alfalfa, grain, and
irrigated crops as the major farm operations. No significant changes to the environment
are expected in the next several years.

Lassen Junior Pronghorn Antelope Hunt: The proposal expands hunt
boundaries and extends the season to coincide with boundaries and general season
dates for Zone 4 - Lassen (Figure 4). Because the proposal expands hunt boundaries
beyond the Honey Lake Wildlife Area, it renames the hunt as the Lassen Junior
Pronghorn Antelope Hunt.
Big Valley Junior Pronghorn Antelope Hunt: The proposal expands hunt boundaries and extends the season to coincide with boundaries and general season dates for Zone 5- Big Valley (Figure 5). It renames the Hunt as the Big Valley Junior Pronghorn Antelope Hunt.

Surprise Valley Junior Pronghorn Antelope Hunt: Boundaries and season dates coincide with those for Zone 6 - Surprise Valley (Figure 6). It is named Surprise Valley Junior Pronghorn Antelope Hunt.

Fund-Raising Hunt Area (figures 1-6): Those areas in northeastern California described as pronghorn antelope management zones 1-6 (as described in "Project Location").

The proposed project also provides for pronghorn antelope hunting under the PLM Program. During 2003, PLM hunts for pronghorn antelope occurred at the following ranches: Ratliff Ranch, Clarks Valley-Red Rock Ranch, 5 Dot Ranch (Horse Lake, Auila, and Willow Creek units), Mendiboure Ranch, Clouds Warner, Toms Creek, and Tejon Ranch (Figure 7). During 2004, the Department does not expect major changes to the PLM participants identified in Figure 7.

PROJECT OBJECTIVES

Objectives of the proposed project are to maintain a healthy pronghorn antelope population statewide and provide biologically appropriate public hunting opportunities. The Department desires to maintain a population of 5,600-7,000 animals in northeastern California, 300 animals within the Carrizo Plains area, and a minimum of 100 animals within the Tejon Ranch area.

Specifically, the Department is recommending that the Commission adopt hunting regulations related to pronghorn antelope that will provide for the following:

1. Allocating tags within the ranges identified in Table 1 for each of the six pronghorn antelope hunt zones in northeastern California (figures 1-6), the Big Valley, Lassen, and Surprise Valley Junior hunts (figures 4-6), and the fund raising hunt.

2. Establish pronghorn antelope hunting season dates as follows. For zones 1, 2, 5, and 6 in northeastern California, the general season shall consist of one period which shall open on the Saturday following the third Wednesday in August and extend for nine consecutive days. For zones 3 and 4, the general season shall consist of two periods, each extending for nine consecutive
days. Period 1 shall open on the Saturday following the third Wednesday in August, whereas period 2 shall open on the first Saturday in September. The season for archery-only tag holders in zones 1-6 shall open 14 days prior to the earliest general season period and extend for nine consecutive days. The junior pronghorn antelope season shall open on the Saturday following the third Wednesday in August and extend for nine consecutive days. Within the Honey Lake Wildlife Area, the Fleming and Dakin units shall only be open to junior hunters on Saturdays and Sundays during the season. The fund-raising hunt season shall open on the Saturday before the first Wednesday in August and continue for 51 consecutive days.

3. Provide a bag and possession limit of one pronghorn antelope per season for public hunts.

4. Establish methods of take for pronghorn antelope hunts. For archery-only pronghorn antelope license tags, only archery equipment as described in Section 354, Title 14, CCR may be used. For all other pronghorn antelope license tags, legal firearms and archery equipment, as described in sections 353 and 354, Title 14, CCR, may be used to take pronghorn antelope.

5. Establish a $7.00 nonrefundable application fee for all pronghorn antelope license tag applicants.

6. Establish a $99.75 pronghorn antelope license tag fee to be paid by successful applicants as required by sections 331 and 713 of the Fish and Game Code.

7. Establish procedures for distributing license tags by public drawing and fund-raising events. For the public drawing, applications must be received at the Department's License and Revenue Branch by 5:00 p.m. the first business day after June 1st. Successful applicants will be determined by random drawing within 10 days of the application deadline. Up to six tags will be sold as fund-raising tags pursuant to Section 331 of the Fish and Game Code.

8. Require both successful and unsuccessful tag holders to return pronghorn antelope tags to the Department within one week of the close of the season.

9. Define buck, doe, and either-sex pronghorn antelope for the purpose of the proposed regulation.
10. Provide up to 120 license tags statewide under the PLM Program. No more than 10 percent of the allowable harvest will be allotted to the PLM Program.

11. Establish other regulations and conditions pertaining to pronghorn antelope hunting as specified in sections 363 and 708, Title 14, CCR.

The Department's pronghorn antelope management strategies and population goals are based on the Northeastern California Pronghorn Antelope Management Plan (Department files, Sacramento, California). The primary objective of the Department's pronghorn antelope management program is to maintain a healthy, productive population.

Specific population goals have been determined by considering recent (since 1982) reproductive rates, herd composition ratios (fawns, bucks, and does), property damage problems (California Department of Fish and Game data and files, Wildlife Programs Branch, Redding and Sacramento, California), and trends in range condition and use as they determine availability and quality of forage and habitat. Population models were used to test population goals and develop harvest strategies for each zone and area (D.O. Smith, California Department of Fish and Game, Redding, California; D.R. Updike, California Department of Fish and Game, Sacramento, California). Harvest recommendations were based on estimated population size, distribution of pronghorn antelope in the project area, desired buck-to-doe ratio, hunting and non-hunting mortality, and the number of animals desired for translocation.

Hunting strategies are designed to achieve and maintain specific herd goals. The harvest strategy for northeastern California for 2004 is intended to allow the take of five to six percent of the population estimate based on the winter survey, and is intended to result in a post-hunt ratio of at least 24 bucks per 100 does. By cautiously working toward management goals, an annual assessment can be made regarding the overall effectiveness of managing pronghorn antelope in California. Desired buck-to-doe ratios in California are slightly higher than many other states. The most often prescribed buck-to-doe ratio goal for managing pronghorn in the western United States is 20 to 100, because it is considered a "biologically safe" post-harvest objective, leaving enough bucks to meet all breeding requirements (Salwasser 1980, Tsukamoto 1983).

The population models (ANTQUOTA and KILLVARY) used to predict effects of harvest strategies include non-hunting mortality factors. However, the Department would not recommend hunting in a given area if the population was not viable and healthy as determined by surveys. Any significant mortality factors occurring after the survey and prior to the proposed hunting season could be at least partially alleviated by the Commission with emergency action if necessary.
THE MANAGEMENT OF PRONGHORN ANTELOPE IN CALIFORNIA

Historical Perspective of Pronghorn Antelope Management

Pronghorn antelope are native to California and western North America. Accounts from journals and diaries of early explorers indicate that pronghorn antelope inhabited much of the grasslands, oak woodlands, and sagebrush-steppe vegetation communities in California. Figure 8 illustrates historic pronghorn antelope distribution in California.

The pronghorn antelope inhabiting northeastern California are believed to be of the subspecies \textit{A. a. oregona} or \textit{A. a. americana} (OGara 1978, Lee et al. 1994). Pronghorn antelope which historically inhabited the Central Valley were described as \textit{A. a. americana} (Hall and Kelson 1959). Possibly two subspecies, Sonoran pronghorn antelope (\textit{A. a. sonoriensis}) and Peninsular pronghorn antelope (\textit{A. a. peninsularis}), inhabited southern California during pristine times (Stephens 1921, Arizona Game and Fish Department 1981).

Pronghorn antelope density in the San Joaquin Valley of central California was reported to be greater than in any area west of the Mississippi River (Hjersman 1958). Pronghorn antelope meat was the cheapest available in San Francisco prior to 1855, confirming the species abundance (Hjersman 1958). For a 20 year period following the 1848 discovery of gold, pronghorn antelope numbers statewide were drastically reduced due to market shooting, poaching, livestock competition, changes in land-use patterns, agriculture, and other disturbances brought by European settlers. In 1852, a law enacted by the California Legislature prohibited hunting pronghorn antelope for six months of the year (Chapter LXI, sections 1-4). However, with no enforcement, this law was ineffective. In 1883, pronghorn antelope, elk, and mountain sheep were afforded a further level of protection by the Legislature (Chapter XLIII, Section 626). But again, there was little enforcement.

By the early 1900s, pronghorn antelope numbers in California totaled only a few thousand. By 1923, there were less than 1,000 animals reported in seven areas of the State. By the mid 1940s, they were known to occur only in northeastern California, but their numbers had increased four-fold from levels reported in 1923. With the rapid recovery, complete protection of pronghorn antelope from hunting was repealed in 1941, thereby enabling limited hunting.
Figure 8
Historic and Present Distribution of Pronghorn Antelope
Current Management Activities (1942 through the Present)

Pronghorn antelope hunts in northeastern California occurred sporadically from 1942-64 (Figure 9), and annually since 1964 (Table 3). Figure 9 shows the pronghorn antelope population trend in northeastern California from 1940-2003, based on annual surveys conducted by the Department. Population numbers declined to approximately 2,000 animals prior to 1960. After 1960, the statewide pronghorn antelope population gradually increased until 1992, when California supported more than 8,000 animals. Population numbers declined as a result of severe conditions in northeastern California during the 1992-93 winter. Although population numbers have not yet recovered to their 1992 levels, the current population is well above levels recorded during the 1950s.

Throughout the western states, pronghorn antelope numbers tend to steadily increase under favorable environmental conditions, with rapid declines under severe weather conditions (i.e., snow). Since the 1950s, the statewide population has more than doubled to approximately 5,500 animals (Department of Fish and Game, Sacramento, California).

Increased agricultural production (alfalfa and grain crops) and water development on public land have likely benefited pronghorn antelope in California by improving forage on private lands (Pyrah 1987). Conservation and law enforcement policies and increased attention toward pronghorn antelope management were possible factors that contributed to the population increase.

Translocation of pronghorn antelope to unoccupied historic range has been ongoing since the 1940s as funding was available and suitable sites were identified (Figure 8). In total, 1,092 pronghorn antelope have successfully been translocated to historic range since 1947 (Table 4). Pronghorn antelope have been reintroduced to seven areas of the State, including Colusa, San Luis Obispo, Mono, Kern, Los Angeles, Santa Clara, San Benito, and Monterey counties (Figure 8). Additional translocation projects are anticipated in the future, pending the availability of surplus animals. Translocation and hunting are the primary means of alleviating property damage problems, because California has no legal provision for issuing depredation permits to kill pronghorn antelope causing damage.
Figure 9
Northeastern California Pronghorn Antelope population numbers, 1942 to present. Population numbers are based on results of annual winter census using fixed-wing aircraft. Harvest numbers are based on tag returns.
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*Does not include PLM harvest (See Table 9 for PLM harvest).
Table 4. Pronghorn Antelope Translocation Projects
(modified from Pyshora 1988, Department of Fish and Game files)

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PRIVATE LANDS WILDLIFE HABITAT ENHANCEMENT AND MANAGEMENT AREA (PLM) PROGRAM

In addition to public pronghorn antelope hunting, the Commission authorizes pronghorn antelope hunting on PLM’s. The PLM Program was authorized by the Legislature (sections 3400-3409, Fish and Game Code) to protect and improve wildlife habitat by encouraging private landowners to manage their property to benefit fish and wildlife. Economic incentives are provided to landowners through biologically sound yet flexible seasons for game species resulting in high-quality hunting opportunities which may be marketed by the landowner in the form of fee hunting or other forms of recreation. Section 601, Title 14, CCR, contains regulations adopted by the Commission and sections 3400-3409, Fish and Game Code, contain the statutes pertaining to the PLM Program.

The Program included 75 licensed properties during 2003, representing wildlife management and protection on about 850,000 acres of important privately owned wildlife habitat. In comparison, the Department owns and manages approximately 750,000 acres statewide. Thirteen licensed properties have participated in the PLM program and offered pronghorn antelope hunting opportunities during recent years.
Figure 7). In total, 12 pronghorn antelope tags were issued through the PLM program in 2003. The Department anticipates the addition of up to two new properties during 2004. Effects of the PLM harvest with regard to the proposed project are discussed in Chapter 4.

Landowners have always had the right to charge access fees for hunting, fishing, and other recreational activities on their property. The PLM Program allows the Commission to further authorize hunting season's specific to licensed PLM areas, pursuant to goals and objectives of the Northeastern California Pronghorn Antelope Management Plan and individual PLM management plans. In addition, hunters wishing to hunt a buck pronghorn antelope on a PLM area are not subject to the 10-year waiting period prescribed in Section 363, Title 14, CCR, after purchasing a buck pronghorn antelope license tag through the public hunting program. The total number of pronghorn antelope taken on PLM areas is set under conditions of each area license. However, individual hunters may obtain a tag for more than one PLM area.

Department staff evaluates habitat improvement proposals during the management plan review process prior to license approval. The Commission also reviews all management plans prior to final approval. Many of the larger improvements which have the potential for significant environmental modification, (e.g. controlled burns designed to benefit early successional stage species) are accomplished under State or Federal cost-sharing assistance programs. These programs often use environmental checklists to provide an environmental review for habitat improvement projects.

INTENDED USES OF THE ENVIRONMENTAL DOCUMENT

This environmental document has been prepared to assess potential impacts of hunting pronghorn antelope in California. The Department prepared the environmental document on behalf of the Commission in accordance with CEQA and the "CEQA Guidelines," consistent with the Commission's certified regulatory program (see Section 781.5, Title 14, CCR, Section 21080.5, Public Resources Code, and Section 15251 (b), CEQA Guidelines). The document is an informational item to aid the Commission in the decision-making process and to inform the public of potential effects of hunting pronghorn antelope. In this regard, the environmental document analyzes and describes the prospect of environmental impacts that might result from the Department's recommendation and alternatives to that proposal, including analysis of issues such as depredation, illegal kill habitat loss, the PLM Program, and other related environmental issues.

The Commission has approved public pronghorn antelope hunting in California annually since 1964, and, since 1990, has done so with the benefit of an environmental document prepared by the Department on its behalf, in accordance with CEQA. From a biological perspective, annual hunting is part of the existing conditions for the pronghorn
antelope population statewide. Against this backdrop, the Department is recommending, in particular, that the Commission adjust the tag quotas for some individual hunts in 2004, which will alter the total public tag quota compared to the level authorized in 2003. The Department is also recommending establishment of a new Junior Pronghorn Hunt (Surprise Valley), and modification of zones, season dates, and other conditions for existing junior Hunts. A more detailed discussion of the Department's recommendations for 2004 can be found in the Project Objectives section.

Finally, where appropriate, the environmental impact analysis that follows may refer to and incorporate by reference information contained in previous environmental documents. Any future recommendations to the Commission by the Department regarding pronghorn antelope hunting may also take the same approach. In addition, if substantial changes occur in the project itself, or if new information reveals new or substantially more severe environmental impacts than previously disclosed or analyzed, a subsequent environmental document or a supplement to a previously adopted environmental document will be prepared [see Wildlife Alive v. Chickering (1976) 18 Cal.3d 190; Section 21166, Public Resources Code].

THE FUNCTIONAL EQUIVALENT

CEQA requires public agencies in the State to evaluate environmental impacts of projects that they approve or carry out that may have a potential to significantly affect the environment. Most agencies satisfy this requirement by preparing an environmental impact report (EIR) or a mitigated negative declaration (ND). However, an alternative to the EIR/ND requirement has been created for State agencies whose activities include the protection of the environment within their regulatory programs. Under this alternative, State regulatory agencies may request certification of their regulatory programs from the Secretary for Resources, after which the agency may prepare a functionally equivalent environmental document in lieu of an EIR or ND (Section 21080.5, Public Resources Code; and Section 15251, CEQA Guidelines). The regulatory program of the Commission has been certified by the Secretary for Resources, and the Commission is eligible to submit this environmental document in lieu of an EIR or ND (Section 15252, CEQA Guidelines).

This environmental document contains a description and analysis of the proposed action, cumulative impacts, and alternatives to the proposed project. In addition, it contains a discussion of relevant policies of the Legislature and the Commission. These policies are contained in Section 781.5, Title 14, CCR. The environmental document presents information to allow a comparison of the potential environmental effects of various levels of hunting. Although an alternative may not achieve the proposed project's objectives, it is considered to provide the Commission and the public with additional information related to the options available. Both hunting and non-hunting alternatives are considered.
CHAPTER 3. ENVIRONMENTAL SETTING OF THE PROJECT

The Legislature formulates laws and policies regulating the management of fish and wildlife in California. The general wildlife conservation policy of the State is to encourage the conservation and maintenance of wildlife resources under the jurisdiction and influence of the State (Section 1801, Fish and Game Code). The policy includes several objectives, as follows:

1. To provide for the beneficial use and enjoyment of wildlife by all citizens of the State;

2. To perpetuate all species of wildlife for their intrinsic and ecological values, as well as for their direct benefits to man;

3. To provide for aesthetic, educational, and non-appropriative uses of the various wildlife species;

4. To maintain diversified recreational uses of wildlife, including hunting, as proper uses of certain designated species of wildlife, subject to regulations consistent with the maintenance of healthy, viable wildlife resources, the public safety, and a quality outdoor experience;

5. To provide for economic contributions to the citizens of the State through the recognition that wildlife is a renewable resource of the land by which economic return can accrue to the citizens of the State, individually and collectively, through regulated management. Such management shall be consistent with the maintenance of healthy and thriving wildlife resources and the public ownership status of the wildlife resource;

6. To alleviate economic losses or public health and safety problems caused by wildlife; and

7. To maintain sufficient populations of all species of wildlife and the habitat necessary to achieve the above-stated objectives.

The Legislature has delegated authority to regulate the take and possession of wildlife to the Commission, whose members are appointed by the Governor. With respect to pronghorn antelope, the Legislature has established the State's policy regarding hunting in Section 331 of the Fish and Game Code (Appendix 1), which provides that the Commission may determine and fix areas, seasons and hours, bag and possession limits, and the number of pronghorn antelope that may be taken under rules and regulations of the Commission. Additionally, this section specifies that the Department shall authorize tags for the purpose of raising funds for programs and
projects to benefit pronghorn. These fund-raising tags are not subject to fee limitations presented in Section 331. A minimum of one tag and a maximum of one percent of the total pronghorn tag allocation may be designated as fund-raising tags.

The proposed hunt areas are located in northeastern and central California and consist of rural areas with small cities and towns (figures 1-6). The proposed hunt areas are within portions of Lassen, Modoc, Plumas, Shasta, Siskiyou, Kern, and Los Angeles counties; specific descriptions of these areas were provided in Chapter 2. The total size of the proposed project area is approximately 8,100,000 acres.

Cumulatively, land ownership within the proposed hunt areas is in a ratio about two to one public to private acreage, although this proportion varies within each zone (Chapter 2). Public land is administered primarily by the USFS and the BLM. Private land consists primarily of range and agricultural lands.

Pronghorn antelope habitat in northeastern California consists of Great Basin vegetation (Munz and Keck 1973, Barbour and Major 1977), with climate characterized by warm, dry summers and cold winters. These areas are often referred to as "cold deserts" because of the small amount of precipitation received and cold winters. Natural vegetation types inhabited by pronghorn antelope include sagebrush-scrub, sagebrush-grass, and pinyon-juniper communities. Agricultural habitats include annual pastures, and alfalfa and grain fields. Snow covers the ground for much of the winter, and pronghorn antelope migrate to areas with minimal accumulation during the fall.

The pronghorn antelope in central California primarily inhabit valley grasslands and surrounding arid scrub communities (mountain, mixed, and redshank chaparral; Joshua tree; alkali desert scrub) with hot dry summers and cool winters [Wildlife Habitat Relationships (WHR) System, Munz and Keck 1973, and Holland 1986]. Snow, water, and mud may persist during various seasons. As in northern California, the pronghorn antelope may move from areas with snow and water accumulation to areas with nutritious browse or green forage.

Livestock grazing, wildlife habitat, and recreation are primary land uses on public land throughout the proposed project area. About 75,000 acres of public land in the proposed project area are managed as State or Federal wildlife areas/refuges. Some pronghorn antelope inhabit these areas. On other private land in the project area, alfalfa and grain production are primary uses, with livestock grazing an important land-use practice as well. Irrigated crops (especially alfalfa) are very desirable to pronghorn antelope living in these communities, especially during summer for fawning cover and high-quality forage. Events such as drought, wildfires, and severe winters were natural components in the evolution of the State’s pronghorn antelope in pristine times.
FACTORS AFFECTING PRONGHORN ANTELOPE HABITAT

Precipitation

California climate is Mediterranean, meaning that over the long term, the State receives the bulk of its precipitation during the cool fall and winter months; whereas warm spring and summer months are generally dry. In other words, California undergoes a "summer drought" each year. Extreme variation in precipitation occurs in the State on an annual basis (Table 5). For example, Northwest California receives a great deal of precipitation, while northeastern and southern parts of the State receive little precipitation. Additionally, topographic features, such as the Sierra Nevada range, influence climate by creating a rain shadow whereby most of the precipitation falls on the west side of the range, extracting most of the moisture from clouds by the time they reach the east side of the range. The amount of precipitation falling on California is extremely variable on a geographic basis within a year and extremely variable in any one area among years.

Droughts are cyclic over the long term, and California's wildlife species and their habitats have evolved under conditions of periodic drought (Bakker 1972, Munz and Keck 1973, Oruduff 1974, Burcham 1975, Barbour and Majors 1977). According to data available since the late 1800s, California has been in several drought cycles lasting two to five years (Department of Water Resources data, Sacramento, California). Because of this natural variation in available water, vegetation communities have evolved and adapted to deal with the associated changes in soil moisture (Barbour and Majors 1977).

Precipitation and snowfall during the winter of 1992-93 broke the seven-year statewide drought (Department of Water Resources 1993). Northeastern California received near normal precipitation in 1989 and record snowfalls in 1993, whereas southern California received above average rainfall from 1991-93 and in 1995 (Department of Fish and Game files, Sacramento, California). Hence, pronghorn antelope may have been temporarily affected by drought during a portion of the most recent drought episode. However, the climatic conditions in recent years in the project area do not deviate from the normal historical occurrence of periods of drought and extreme precipitation/snowfall under which pronghorn antelope likely evolved (Department of Water Resources, Sacramento, California; Owenby and Ezzell 1992).
Table 5. California Statewide Precipitation - Percent of Normal

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
<th>Year</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1967</td>
<td>130</td>
<td>1968</td>
<td>75</td>
</tr>
<tr>
<td>1969</td>
<td>150</td>
<td>1970</td>
<td>100</td>
</tr>
<tr>
<td>1971</td>
<td>105</td>
<td>1972</td>
<td>65</td>
</tr>
<tr>
<td>1973</td>
<td>115</td>
<td>1974</td>
<td>130</td>
</tr>
<tr>
<td>1975</td>
<td>100</td>
<td>1976</td>
<td>65</td>
</tr>
<tr>
<td>1977</td>
<td>45</td>
<td>1978</td>
<td>155</td>
</tr>
<tr>
<td>1979</td>
<td>90</td>
<td>1980</td>
<td>135</td>
</tr>
<tr>
<td>1981</td>
<td>75</td>
<td>1982</td>
<td>150</td>
</tr>
<tr>
<td>1983</td>
<td>190</td>
<td>1984</td>
<td>105</td>
</tr>
<tr>
<td>1985</td>
<td>83</td>
<td>1986</td>
<td>132</td>
</tr>
<tr>
<td>1987</td>
<td>63</td>
<td>1988</td>
<td>80</td>
</tr>
<tr>
<td>1989</td>
<td>80</td>
<td>1990</td>
<td>70</td>
</tr>
<tr>
<td>1991</td>
<td>76</td>
<td>1992</td>
<td>86</td>
</tr>
<tr>
<td>1993</td>
<td>141</td>
<td>1994</td>
<td>65</td>
</tr>
<tr>
<td>1995</td>
<td>165</td>
<td>1996</td>
<td>125</td>
</tr>
<tr>
<td>1997</td>
<td>174</td>
<td>1998</td>
<td>175</td>
</tr>
<tr>
<td>1999</td>
<td>95</td>
<td>2000</td>
<td>98</td>
</tr>
<tr>
<td>2001</td>
<td>74</td>
<td>2002</td>
<td>79</td>
</tr>
<tr>
<td>2003</td>
<td>111</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a = Percentages are for water year ending September 30. For example, water year 1998 is from October 1, 1997 through September 30, 1998. Normal is based on a 50-year average between 1931 and 1981.

Vegetation communities in the project area are drought tolerant. However, this is not to say that prolonged drought will not affect plant species. Growth and vigor of forage species that pronghorn antelope rely on may be severely reduced during a drought, because annual plant seeds may not germinate without adequate moisture, and shrubs could have reduced growth as a water conserving strategy. Consequently, the quantity and quality of forage for herbivores would be reduced. Drought may also weaken plant resistance to disease, fungus, and insect damage. This would be considered part of a natural drought cycle.
In annual grassland vegetation communities (this applies to many areas of the Great Basin and valley grassland), the lack of fall germinating rains or minimal spring rains can preclude germination of annual seeds of forbs and grasses, which are important sources of forage, primarily during the fall, winter, and spring. Seeds of these species would continue to lie dormant in the soil until germinating conditions became suitable. The reduced quantity of vegetative cover due to prolonged drought in some areas could affect thermal and hiding cover important to pronghorn antelope.

Habitats in the project area are, to a large extent, managed and affected by humans. As related to drought and water availability, human management of pronghorn habitat has produced stability in water availability due in part to the development of various water sources, including wells, guzzlers and stock tanks, irrigation, reservoirs, and fire management. Currently, water is more available to pronghorn antelope, regardless of drought, than it would have been prior to settlement in the 1800s. There are no documented cases of pronghorn antelope being unable to obtain water due to drought.

Wildfire

Wildfire in California is extremely variable (Table 6). One aspect of prolonged drought that would affect pronghorn antelope habitat is an increased risk of wildfire due to extremely dry conditions. Prolonged drought affects the woody plant community, in terms of increased plant mortality and decreased moisture content, and may make them more susceptible to wildfire and succession by exotic annual grasses. Wildfires in these arid shrub communities generally convert shrubland to grassland (Pickford 1932). Wildfires may occur during summer months because of lightning strikes. Kindschy et al. (1982) indicated that wildfire can benefit pronghorn antelope by stimulating growth of desirable herbaceous vegetation. However, fires of an extensive size can result in less than desirable shrub cover and invasive growth of exotic annual grasses for several years (Pyrah 1987). Additionally, the reduction of tall shrub vegetation may create a more suitable environment by reducing thick cover, especially dense, decadent woody shrubs. Hence, wildfires can benefit pronghorn antelope by reducing thick shrub cover and stimulating growth of desired forage species. However, wildfires can be detrimental if large areas are burned and shrub cover is eliminated.

Wildfires have always been a natural phenomenon in California wildlife habitats. Consequently, the plant and animal communities are well adapted to the occurrence of fire, and many species far better in months and years following a burn (Shaw 1985, Peek 1986). Many plant species require fire to reproduce. As soon as the habitat regenerates after a fire, rabbits and squirrels will reoccupy it. These animals are some of the first to re-inhabit areas burned by wildlife.

Even though certain individuals of a species may be killed on a local level, there is no evidence to indicate that fire has negative, long-term effects on resident small mammal populations (Johnsgard 1973). Although California experienced an unusually
Table 6. Acres of Wildfire in California - 1980 through 2003

<table>
<thead>
<tr>
<th>Fire Season</th>
<th>Acres Burned</th>
</tr>
</thead>
<tbody>
<tr>
<td>1982</td>
<td>160,000</td>
</tr>
<tr>
<td>1983</td>
<td>128,000</td>
</tr>
<tr>
<td>1984</td>
<td>251,000</td>
</tr>
<tr>
<td>1985</td>
<td>595,000</td>
</tr>
<tr>
<td>1986</td>
<td>119,000</td>
</tr>
<tr>
<td>1987</td>
<td>873,000</td>
</tr>
<tr>
<td>1988</td>
<td>345,000</td>
</tr>
<tr>
<td>1989</td>
<td>173,400</td>
</tr>
<tr>
<td>1990</td>
<td>365,200</td>
</tr>
<tr>
<td>1991</td>
<td>44,200</td>
</tr>
<tr>
<td>1992</td>
<td>282,745</td>
</tr>
<tr>
<td>1993</td>
<td>309,779</td>
</tr>
<tr>
<td>1994</td>
<td>526,219</td>
</tr>
<tr>
<td>1995</td>
<td>209,815</td>
</tr>
<tr>
<td>1996</td>
<td>752,372</td>
</tr>
<tr>
<td>1997</td>
<td>283,885</td>
</tr>
<tr>
<td>1998</td>
<td>215,412</td>
</tr>
<tr>
<td>1999</td>
<td>499,425</td>
</tr>
<tr>
<td>2000</td>
<td>295,026</td>
</tr>
<tr>
<td>2001</td>
<td>372,506</td>
</tr>
<tr>
<td>2002</td>
<td>510,356</td>
</tr>
<tr>
<td>2003</td>
<td>*736,146</td>
</tr>
</tbody>
</table>

* Preliminary data.
Figure 10
Northeastern California Pronghorn Antelope Populations and Estimated Herd Composition from Annual Surveys 1954 - Present
elevated fire season in 2003, the estimate of 736,146 acres accounts for less than one percent of California’s acreage. The five-year average for 1998-02 is 378,545 acres burned (California Department of Forestry data).

Severe Winters

Severe winters and late winter snows can result in the death of pronghorn antelope. Pronghorn antelope may move to winter ranges earlier and stay longer during severe winters. Deep winter snows in 1951-52 and 1992-93 apparently adversely impacted pronghorn antelope survival in northeastern California. However, Pronghorn antelope can rapidly recover after such natural disasters (figures 9 and 10).

Subsequent to the severe winter of 1951-52, mild winters coincided with increasing pronghorn antelope numbers until record numbers were counted during 1992 (Figure 9). Pronghorn population levels are expected to increase again under favorable conditions.

The 1992-93 storms brought record snowfall to portions of the project area. Fortunately, many areas which comprise pronghorn antelope winter range were not severely impacted. The winter and summer surveys help the Department determine the severity of the winter kill. The proposed project considers the potential of other non-hunting mortality factors, including a winter kill factor in the ANTQUOTA and KILLVARY models which provide the proposed tag allocation.

Threatened and Endangered Species

The Commission has listed a number of plant and animals species as endangered or threatened. These species are listed in sections 670.2 and 670.5, Title 14, CCR. The California Natural Diversity Database (CNDDB), Rarefind, and the WHR guides were consulted to identify threatened and endangered plants and animals in or adjacent to the project area. Table 7 lists the Federal/State endangered, threatened, or fully protected plant and animal species in the project area. Negative impacts are not expected from the proposed project, because these plants and animals are dispersed or occur marginally, if at all, within pronghorn antelope habitat (CNDDB point locations). It is improbable that pronghorn antelope hunters would have a significant impact on these plant and animal populations (Table 7) because of the limited number of hunters and the short season length. Comparatively, livestock and urban and agricultural development may have a greater impact on some of these populations than either pronghorn antelope or hunters. Historically, there is no evidence that pronghorn antelope hunting will significantly affect these listed species.
<table>
<thead>
<tr>
<th>Common Name (Species Name)</th>
<th>Status</th>
<th>/Habitat /Season in Project Area /Identified Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ashland Thistle (Cirsium ciliolatum)</td>
<td>SE</td>
<td>/Found in Cismontane Woodlands; produces from buried rhizome /Not in pronghorn habitat /Livestock grazing and agriculture.</td>
</tr>
<tr>
<td>Boggs Lake Hedge-Hyssop (Gratiola heterosepala)</td>
<td>SE</td>
<td>/Occurs in vernal pools and at Lake Margins /Present in project area primarily within protected sites /Agriculture, livestock grazing, and urban development.</td>
</tr>
<tr>
<td>Slender Orcutt Grass (Orcuttia tenuis)</td>
<td>SE, FT</td>
<td>/Occurs in bottom of vernal pools /Within project area but not in areas occupied by hunted pronghorn antelope /Agriculture, development, and &quot;pool hydrology.&quot;</td>
</tr>
<tr>
<td>Yreka Phlox (Phlox hirsuta)</td>
<td>SE, FE</td>
<td>/Occurs in lower Montane Conifer Forest /Occurs beyond the periphery of the project area /Urban development and logging.</td>
</tr>
<tr>
<td>Bank Swallow (Riparia riparia)</td>
<td>ST</td>
<td>/Inhabits areas near rivers with sandy vertical banks /Seasonal migrant that leaves area generally before hunt season /Modification of river and streams system, especially by altering bank.</td>
</tr>
<tr>
<td>Bald Eagle (Haliaeetus leucocephalus)</td>
<td>SE, FE</td>
<td>/Inhabits Wetland and Forest habitats; nests in Mountainous Habitat /Seasonal migrant and resident, generally not present during time of proposed project /Development, agriculture, pesticides, timber harvest, nest disturbance, and shooting; laws provide that shooting is illegal.</td>
</tr>
<tr>
<td>Swainson's Hawk (Buteo swainsoni)</td>
<td>ST</td>
<td>/Inhabits Valley and Foothill Grasslands /Seasonal migrant, nests in project area and generally leaves before hunt season /Loss of habitat due to residential, commercial, and agricultural development and potentially poisoning of prey.</td>
</tr>
<tr>
<td>Greater Sandhill Crane (Grus canadensis tabida)</td>
<td>ST</td>
<td>/Inhabits Inland Wetlands; nests in Wet Meadows and Marshes /Seasonal migrants /Habitat destruction, disturbance, and predation and accidental take on breeding grounds.</td>
</tr>
<tr>
<td>American Peregrine Falcon (Falco peregrinus anatum)</td>
<td>SE</td>
<td>/Inhabits many habitats, especially over water; nests on cliff faces /Seasonal presence /Poisoning, egg collection, and nest disturbance /Federally de-listed in 1999.</td>
</tr>
<tr>
<td>Great Gray Owl (Strix nebulosa)</td>
<td>SE</td>
<td>/Inhabits Upper Montane Coniferous Forests /Within project area, but located at a higher elevation and utilizes a different habitat than pronghorn antelope /Habitat loss due to logging and lower prey density due to livestock grazing.</td>
</tr>
</tbody>
</table>
Table 7. Cont. Federal/State Endangered, Threatened, or Fully Protected Plant and Animal Species in the Project Area

<table>
<thead>
<tr>
<th>Common Name (Species Name)</th>
<th>Status</th>
<th>/Habitat /Season in Project Area /Identified Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willow Flycatcher (Empidonax traillii)</td>
<td>SE FE</td>
<td>/Inhabits extensive willow thickets (Riparian Scrub) /Seasonal migrant, inhabits periphery of project area during spring and summer for nesting /Loss of riparian habitat, livestock grazing, and nest parasitism by exotic birds.</td>
</tr>
<tr>
<td>Modoc Sucker (Catostomus microps)</td>
<td>SE FE</td>
<td>/Inhabits Pit River Drainage and tributary streams in Modoc Plateau /Present all year, utilizes a different habitat than would be impacted by proposed project; marginal use of project area /Endangered /Drought, predators, cattle grazing.</td>
</tr>
<tr>
<td>Shasta Crayfish (Pacifastacus fortis)</td>
<td>FT SE</td>
<td>/Inhabits Hat Creek, Fall River, Pit River Drainage /Present all year, utilizes different habitat than proposed project /Competition with other crayfish species.</td>
</tr>
<tr>
<td>Rough Sculpin (Cottus asperhmus)</td>
<td>ST</td>
<td>/Inhabits the Pit River Drainage (below Burney Falls), including Hat River and Fall River /All year, but different habitat use than project area /Cattle grazing causing siltation and bank erosion.</td>
</tr>
<tr>
<td>Lost River Sucker (Diltistes luxatus)</td>
<td>SE FE</td>
<td>/Klamath Drainage, and lakes and streams; spring spawn /Present all year, but utilizes different habitat than proposed project /Loss of spawning habitat, diversions, predation, and hybridization are threats to species.</td>
</tr>
<tr>
<td>Shortnose Sucker (Chasmistes brevirostris)</td>
<td>SE FE</td>
<td>/Inhabits the Klamath Drainage, lakes, and rivers /All year, spawn in streams in April and May; use a different habitat than proposed project /Water diversion and hybridization.</td>
</tr>
<tr>
<td>Sierra Nevada Red Fox (Vulpes vulpes Necator)</td>
<td>ST</td>
<td>/Northern California cascades east to northern Sierra Nevada and south along the Sierra Nevada to Tulare County /All year, generally at 5,000-7,000 foot elevation /Threats unknown.</td>
</tr>
<tr>
<td>California Condor (Gymnogyps californiaus)</td>
<td>SE FE</td>
<td>/Inhabits Chaparral, and Foothill and Valley Grasslands /Extant at this time; once present all year /Predation, poisoning, and development; current regulation does not allow the game entrails to be discarded or the non-target species to be shot; poisoning should not be a factor.</td>
</tr>
<tr>
<td>Tehachapi Slender Salamander (Batrachoseps stebbinsi)</td>
<td>ST</td>
<td>/Cismontane Woodland and Riparian /Inhabits periphery of project area all year, and not in area occupied by hunted pronghorn antelope /Loss of habitat.</td>
</tr>
<tr>
<td>Longhorn Fairy Shrimp (Branchinecta longiantenna)</td>
<td>FE</td>
<td>/Alkali Lakebed /present but aestivating/ land and water changes/</td>
</tr>
</tbody>
</table>

(Sources: California Department of Fish and Game, 2001; Zeiner, Laudenslayer, Mayer, and White1990; Tiber, 2001.)
Many species listed in Table 7 are seasonally active in portions of the project area before or after the proposed hunt season and would not be encountered by hunters (e.g., bald eagle, bank swallow, willow flycatcher, sandhill crane, Swainson’s hawk, longhorn fairy shrimp, and peregrine falcon). Others have very restricted habitat requirements and are not expected to come in contact with either hunters or pronghorn antelope (e.g., Modoc sucker, shortnose sucker, Shasta crayfish, rough sculpin, slender salamander, great gray owl, Yreka phlox, slender Orcutt grass, Ashland thistle, and Boggs Lake hyssop). Although some species in Table 7 may be widely distributed throughout portions of the project area (e.g., bank swallow, Swainson’s hawk), hunting is merely one of many recreational activities that is permitted to occur. To date, there are no documented instances of pronghorn antelope hunters adversely affecting these species.

The Department's analysis concludes that these listed species should not be affected by the proposed project. The proposed project occurs several months after the reproductive period for threatened and endangered species. Impacts on carrion eaters will be insignificant because of the low number of pronghorn antelope (relative to the total population and other food sources) available as a result of the project. Other food sources of carrion (e.g., livestock, lagomorphs, and rodents) will be more abundant due to agricultural development and water projects on these ranges.

The Pacific Coast snowy plover (federally listed) which occurs outside of the project area and the western snowy plover which occurs in the project area are recognized as separate populations of Charadrius alexandrinus nivosus. The western snowy plover is not a federally or State-listed species.

The western yellow-billed cuckoo (Coccyzus americanus occidentalis), California bighorn sheep (Ow’s canadensis californiana), California wolverine (Gulo gulo luteus), tricolored blackbird (Agelaius tricolor), Shasta salamander (Hydromantes shastae), idewater goby (Eucyclogobius newberryi), and Tuctoria greenei (Greene’s tuctoria) were listed as extirpated or occur outside the proposed project area. The Department's analysis concludes that these species will not experience adverse effects from the proposed project.

The Sierra Nevada red fox (Vulpes vulpes necator) and northern spotted owl (Strix occidentalis caurina) may occur in northeastern California within the proposed project area. However, it is unlikely that either of these species will be adversely affected by the proposed project.
CHAPTER 4. THE ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

Direct effects of the proposed project will be the death of individual pronghorn antelope and the presence of hunters distributed within the approximately 8,100,000-acre project area during portions of a 51-day period beginning in early August. Hunters will not be in the field simultaneously, but will be distributed according to the specified hunt areas and seasons. Only pronghorn antelope in designated hunt areas in California will be affected by the proposed project. The proposed project will bring an influx of hunters into the project area and temporarily increase fuel consumption, dust from dirt roads, public services, and human use of the land.

The Department does not foresee significant adverse impacts resulting from the proposed project, based on the past history of pronghorn antelope hunting (Chapter 2), which has occurred annually since 1964. However, the Department has analyzed the anticipated environmental effects of the proposed project, which is contained herein. Significant adverse effects on the environment have not been identified as a result of the pronghorn antelope hunting that has historically occurred in California. Similar to an initial study (Section 15063, CEQA Guidelines), the hunting that occurred in past years provides a benchmark for judging whether significant effects will occur. There is no substantial evidence that the project will have significant adverse effects on the environment.

METHODOLOGY

Natural Factors Influencing Pronghorn Antelope

The proposed removal of individual animals from the hunt area is expected to slightly (and only temporarily) reduce population size to help achieve/maintain herd goals. Pronghorn antelope population numbers are above the level that existed when annual hunting began in 1964 (see figures 9 and 10). The proposed hunt is designed to be a management component (along with other mortality factors and translocation) in achieving/maintaining population numbers within objective levels (Chapter 2). This will help assure that the population remains healthy and within limits supportable by the native range.

Data collected since the inception of pronghorn antelope hunting in 1942 suggest that hunting has not had an adverse effect on the pronghorn antelope population (figures 9 and 10). Regulated hunting may have slowed the rate of population increase over time and helped avoid periodic, localized overpopulation of pronghorn antelope. Population survey data collected on pronghorn antelope are among the highest quality available for large mammal populations, because the species inhabits open range, enabling more accurate and complete herd composition counts (Allen and Samuelson 1987). An annual winter survey involves counting all pronghorn antelope within known wintering areas in the project areas. This can be expected to
result in a minimum population estimate, because some animals are missed. Until 1998, a annual summer herd composition survey was conducted to assess buck, doe, and fawn ratios and trends. After 1998, The Department has conducted summer composition surveys on a periodic basis (most recently in 2002). Data from winter and summer surveys have made it possible to accurately follow changes in pronghorn antelope numbers and to monitor the impacts of hunting and translocations.

THE IMPACT OF HUNTING ON THE PRONGHORN ANTELOPE POPULATION

Additive and Compensatory Mortality

"If hunting is a compensatory form of mortality then populations may be presumed to fluctuate in response to other factors and stocks are little affected by exploitation. However, if hunting is additive to other forms of mortality then it serves as a population depressant" (Peek 1986:286). "Compensatory mortality" describes hunting as only removing excess animals that would die of other mortality factors (e.g., severe winters) and thus compensates for these factors. "Additive mortality" describes hunting as killing animals in addition to the number that normally die of these other mortality factors.

Data indicate that removal of pronghorn antelope from a population, whether by natural- or human-caused factors, results in high fawn production in following years to compensate for animals removed, provided the level of hunting is below the potential to replace (Hess 1986, California Department of Fish and Game translocation and census data 1987-88, 1990-92). The mean age of the population can be expected to become younger as animals are removed from the population through hunting. With fewer adults in the population, proportionately more fawns are born and survive (e.g., Autenreith 1983).

Data from northeastern California for 1990 provide an excellent example of a compensatory population response to removal of individuals (by hunting and translocation). During 1990 approximately 1,000 pronghorn antelope were removed from northeastern California (288 animals were translocated to central California and 717 were killed by hunters), yet survey results (figures 9 and 10) indicate the population was reduced by only 200 animals the following January. It is acknowledged that many pronghorn antelope may not have been counted during the winter survey because of various factors, such as inclement weather (D. Thayer, Alturas, California, unpublished data). However, it is clear that this attempt to reduce population size using hunting and translocation had little effect on the population. Removal of approximately 1,000 pronghorn antelope during 1990 was compensated for by a population increase of approximately 800 pronghorn antelope during 1991 (figures 9 and 10). Examination of harvest, translocation, and population data suggests regulated hunting has not depressed the population consistent with the concept of additive mortality. No significant adverse impacts to the population are expected with the proposed level of hunting (e.g., Tsukamoto 1983, Pyrah 1987).
The ability of pronghorn antelope populations to remain stable or continue to increase under hunting pressure is an indication of their potential productivity when the population is kept below range carrying capacity (Figure 9). University of California researchers Salwasser and Shimamoto (1979) used a computer simulation approach to model effects of management strategies for pronghorn antelope populations in northeastern California and concluded that the population could stabilize at approximately 6,000 animals (based on the 1979 estimate of 5,872 animals) by harvesting 500 bucks and 290 does annually. Historically, the Department's harvest recommendation has involved harvesting both bucks and does to stabilize the population at a level that would not exceed range carrying capacity. It is anticipated that the proposed harvest will result in stabilization or a slight increase in population size measured in 2005. The proposed project should maintain herds at or near objectives described in the Northeastern California Pronghorn Antelope Management Plan and PLM plans (Department files, Sacramento, California).

**Sex and Age Structure**

Most western states establish objective ratios for sex composition of pronghorn antelope populations. The standard ratio is 20 bucks per 100 does in the presence of hunting to ensure that there are sufficient bucks to meet all the breeding requirements (Salwasser 1980, Tsukamoto 1983). It is expected that a post-hunt sex ratio for California of 24 bucks per 100 does, retains additional bucks for breeding, improves hunting and viewing opportunity, and ensures that age structure diversity is maintained. Historically, annual variation in observed sex ratios exists (Figure 11), but on a long term basis, observed sex ratios for California are well above the standard ratio of 20 bucks per 100 does that is established for most western states.

Average age of the pronghorn antelope harvest in California is summarized in Figure 12. The take of pronghorn antelope through hunting is likely to occur across the entire range of adult age classes. Existing data indicate that no one age class is preferred by hunters over another (California Department of Fish and Game check station data, Alturas office of California Department of Fish and Game). Logically then, even as older animals die, the age structure of the population will be stable. Production and survival of young animals within each herd will replace the animals removed by hunting, resulting in a population that does not fluctuate wildly as would normally occur from the influence of predators and variable weather. Research has shown density-dependent characteristics for summer fawn survival (Salwasser 1980, Hess 1986). For example, when pronghorn antelope populations are at or near range carrying capacity, the number of fawns produced decreases proportionately. This has occurred in
Figure 11
Fawn-to-Doe and Buck-to-Doe Ratios in Northeastern California (1953 to 1997)
(Optimal fawn ratio is 60:100 does, desired buck ratio is 24:100 does)
Figure 12. Average Age of Pronghorn Antelope Taken by Hunters in California Based on Analyses of Cementum Annuli.

Average age (in years)

<table>
<thead>
<tr>
<th>Year</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buck</td>
<td>n = 35</td>
<td>n = 155</td>
<td>n = 112</td>
<td>n = 89</td>
<td>n = 134</td>
</tr>
<tr>
<td>Doe</td>
<td>n = 127</td>
<td>n = 66</td>
<td>n = 134</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n = Sample size of individual sexes

Note: No doe hunts authorized after 2000.
Figure 13
Summer Fawn Recruitment Correlated With Total Herd Size
in Northeastern California 1953 - 1997
northeastern California, as fawn production has generally been declining since the 1950s (Figure 13). When adult mortality is high, fawn survival has been shown to proportionately increase in the following year(s). Adult mortality was simulated by the removal of adult pronghorn antelope for translocation purposes in 1987, 1988 and 1990 (Table 4). Significant adult mortality actually occurred during the winter of 1992-93, and fawn recruitment subsequently increased (figures 11 and 13) (California Department of Fish and Game data at Wildlife Programs Branch, Sacramento; Hess 1986).

Agricultural development has decreased pronghorn antelope dependency on native range. Plant productivity and resultant animal carrying capacity can vary significantly from one year to the next on native range as a result of climatic conditions. Hunting pronghorn antelope in California is expected to temporarily reduce the statewide population by five to six percent (based on the proposed tag range in Table 1), which will have little influence on the statewide population (figures 9 and 10). In the past, California has harvested a small percentage of the estimated population annually (Table 8). Most western states harvest 10-25 percent of their entire population annually with no significant adverse effects (Table 8) (see published proceedings of the Biennial Pronghorn Antelope Workshop, Department of Fish and Game, Wildlife and Inland Fisheries Division, Sacramento, California). Since the turn of the century, pronghorn antelope have made a remarkable recovery in the western United States, in the presence of regulated hunting (Yoakum 1968).

From 1990-1992, the Department significantly increased the pronghorn antelope tag quota for northeastern California in an effort to reduce the pronghorn population from over 7,500 to within a range of 5,600-7,000. The population reduction was needed to reduce private property damage (there are no provisions for issuing depredation permits to take pronghorn antelope); and to avoid overpopulation resulting from mild weather conditions and artificially enhanced habitats (i.e. agricultural fields). Despite tag quotas that were more than twice the quotas of previous years (Table 3), the northeastern pronghorn antelope population did not decline until the 1992-1993 winter, when numbers declined significantly as a result of severe winter weather. Under favorable conditions, numbers are expected to again approach the desired range.

Natural Mortality

Some pronghorn antelope killed during the hunting season may have died within the year due to other factors. Therefore, to some extent, natural mortality should decline as hunting mortality increases. In an unhunted state, pronghorn antelope mortality is high for fawns and those over five years of age (Salwasser and Shimamoto 1979). Natural mortality of animals two to five years of age generally is low. Hunting does not significantly affect fawn mortality because fawns usually are not hunted. Hunting can cause slightly higher mortality in age classes above two years. The proposed project is not likely to affect the natural survival of the population as a whole, and the influence of hunting on natural mortality is not expected to be significant.
Table 8. Average Annual Pronghorn Antelope Harvest, 1983-88 for Western States

<table>
<thead>
<tr>
<th>State</th>
<th>Percent Harvest</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>7.6</td>
</tr>
<tr>
<td>Colorado</td>
<td>15.0</td>
</tr>
<tr>
<td>Nevada</td>
<td>4.9</td>
</tr>
<tr>
<td>North Dakota</td>
<td>18.0</td>
</tr>
<tr>
<td>Oregon</td>
<td>12.1</td>
</tr>
<tr>
<td>South Dakota</td>
<td>23.0</td>
</tr>
<tr>
<td>Texas</td>
<td>2.8</td>
</tr>
<tr>
<td>Utah</td>
<td>11.0</td>
</tr>
<tr>
<td>Wyoming</td>
<td>25.0</td>
</tr>
</tbody>
</table>

* Harvest is expressed as a percentage of total state population. Low values for Nevada are due to the low human population applying for hunts, and values are low for Texas because the state is 98 percent private land and hunting is limited (data summarized from proceedings of the Biennial Pronghorn Antelope Workshop, on file at the Department of Fish and Game, Sacramento, California).

Individual Pronghorn Antelope Zones

The proposed project provides buck and doe tag allocation ranges (Table 1) for archery-only, general season, junior hunt, and fund-raising pronghorn antelope tags. The proposed project also provides for hunting under the PLM Program (see chapters 2 and 4), however, specific quotas for each participant in the PLM Program will be authorized at a later time. For northeastern California, the proposed project involves a final buck tag quota for public zones that is intended to result in harvest of five to six percent of the pronghorn antelope population estimate based on 2004 winter survey results. Northeastern California doe tag quotas for 1998 and 1999 (100 tags in 1998, and 196 tags in 1999) allowed for collection of biological information related to the female portion of the population. However, when winter survey results indicate the northeastern California pronghorn antelope population is at a low level, the doe tag quota will be significantly reduced or eliminated (doe tags have not been issued since 1999). Conversely at a high level, the doe tag quota will be increased.

Based on hunter success rates from previous years, the harvest for 2004 is expected to be less than the number of tags issued. Hunter success rates, objective age and sex ratios, and distribution in each hunt area have been used in developing the proposed project, along with winter survey results for known non-hunting mortality factors (winter kill, losses due to vehicles, predation, illegal take, disease, etc).
For each zone in northeastern California, numbers of pronghorn antelope and proportions of bucks, does, and fawns have been counted during aerial surveys, which have occurred annually since the 1940s (figures 10,11 and 13; and Department of Fish and Game files, Wildlife Programs Branch, Sacramento, California). During winter aerial census, the Department has attempted to count every pronghorn antelope in the project area.

Aerial surveys provide one of the more reliable pronghorn antelope population estimators, provided standardized and consistent techniques are used (e.g. Tsukamoto 1983). In northeastern California, the same basic technique has been used since 1942.

Management decisions and proposed hunting quotas are based on the number of animals counted (Allen and Samuelson 1987). Population estimates based on these surveys represent minimum numbers in each zone. Because they are based on conservative population estimates, the tag quotas themselves tend to be conservative also (Table 1).

Results of the 1997 composition survey (completed prior to the hunting season) for northeastern California indicate a buck to doe ratio of 30 bucks per 100 does, based on a sample size of 1,948 animals classified. Winter survey data for 2004 (available in February) will be used with the model to determine final tag quotas for northeastern California. The allowable buck harvest for northeastern California should approach five to six percent of the population estimate resulting from the winter survey. The total PLM harvest in northeastern California will not be greater than 10 percent of the total allowable harvest for 2004. The proposed project is designed to harvest pronghorn antelope and meet population goals as established in the Northeastern Pronghorn Antelope Management Plan and the PLM management plans (see Chapter 2; also Department files, Sacramento, California). On a long-term basis, the harvest for northeastern California should result in a population of between 5,600-7,000 animals, with a post-hunt ratio of at least 24 bucks per 100 does. The Department expects that pronghorn antelope density within northeastern California will vary according to geographical location and habitat conditions. Tag quotas for each zone in northeastern California will be adjusted to correlate with pronghorn density.

**Teion Ranch Private Lands Management Area**

The Tejon Ranch herd contains approximately 100 animals. Surveys have been conducted annually since 1985. Surveys during the fall provide a minimum population estimate and composition data. The Department estimates that less than half of the population was observed during the most recent survey (Fall 2001) when observed buck:fawn:doe ratios were 42:16:100 based on a sample of 35 animals.

Buck- and fawn-to-doe ratios increased after the drought was broken by recent years of above average rainfall. The objective for this herd is to maintain at least 85 animals and a buck-to-doe ratio of 20 to 100. Using the KILLVARY model, the
Department has determined that the proposed harvest would allow for an annual population increase, in conjunction with an increasing carrying capacity (Department files, Sacramento, California). The proposal provides for a growing herd while removing surplus bucks. Based on the analysis of the impact of hunting on the pronghorn antelope population, the proposed project is not expected to have significant adverse impacts on the population.

EFFECTS OF CHANGES IN HUNTING REGULATIONS BY ADJOINING STATES

Very few non-residents choose California as a hunting destination. Regulations of adjoining states do not affect California because pronghorn hunting is restricted to California residents (except for fund-raising and PLM tags). In fact, the five-year average (1998-2002) for out-of-state license sales was merely 2.3% of total sales (Department files). Accordingly, the Department believes that any changes in hunting regulations by adjoining states would need to be drastic (e.g., closure of an entire season for a particular species) in order to produce a potentially significant increase in non-resident license sales and any associated potential increase in harvest. A survey of 2003 game laws for Oregon, Nevada, and Arizona revealed no major changes in large game mammal hunting regulations for these states. Consequently, the Department concludes the hunting regulations of adjoining states will have no significant impact on California's mammal populations.

IMPACTS ON THE GENE POOL

Pronghorn antelope in California are descendants from a remnant stock of approximately 1,000 animals that, in the early 1800s, numbered 500,000 or more. Throughout much of the western United States, pronghorn were similarly decimated (Yoakum 1968). Some research has been conducted on pronghorn antelope genetics, but the successful recovery experienced by the species since it was afforded protection suggests no significant genetic problems associated with the California antelope population. The hunting strategy generally distributes hunters across a wide geographic area. The California pronghorn antelope population is widely distributed. Much of it undergoes seasonal mixing on fall and winter range. The proposed level of hunting is not expected to adversely affect the genetic integrity of pronghorn antelope in California.

IMPACTS ON THE SOCIAL STRUCTURE

Research has shown that light hunting as proposed here does not cause pronghorn antelope to abandon their territories (Copeland and Autenreith 1982). Even under heavy hunting, fawn-to-doe ratios the following year can be as high, or higher than, respective ratios under light hunting, because breeding is spread among more of the males (Copeland and Autenreith 1982). When older age animals were killed as a result of hunting, Byers (1989) suggested that territoriality decreased because males did not defend territories until they were three years old. However, Byers (1989) also
reported that many fawns (especially males) were born in years immediately after high hunting harvests until sex ratios became similar to the observed ratio prior to the high harvests.

Under the proposed project, minor disruption of social groups may occur during the hunting season, but long-term adverse effects on the social structure are not expected. Harassment problems would be more severe during other times such as winter and the fawning season (Autenreith 1983, Yoakum and Ogara 1994). The proposed hunt seasons will occur outside the peak of the breeding season.

IMPACTS ON HABITAT

The removal of a maximum number (see Table 1) of pronghorn antelope during the proposed hunt season (given the expected hunter success rates) could result in a slight increase in availability of forage plants fed on specifically by pronghorn antelope. Generally, other wildlife species and livestock can be expected to consume palatable forage that would be made available by the loss of pronghorn antelope through hunting. Historically, the carrying capacity of pronghorn rangeland was reduced and transferred to livestock use. Native pronghorn habitats may remain stabilized or improve slightly with implementation of the proposed project. Pronghorn antelope damage to agricultural crops will likely decrease as a result of the proposed project.

The proposed project will result in the presence of hunters in the project area during the hunt seasons. The majority of pronghorn antelope range is public rangeland administered by the BLM and USFS, with livestock grazing as the primary use. These areas are open year-round to the public. Many pronghorn antelope hunters regard the proposed hunt as a premier event and have been very ethical and environmentally aware during their hunting experience. Based on previous observations of hunter use of these areas, hunting will not have significant adverse impacts on the habitat. Most of the proposed hunt areas currently are open to the public on a year-round basis for a variety of recreational uses, including hunting.

No lasting impacts are expected as a result of the proposed project. The post-hunt population size will be sufficient to maintain or improve herd health and habitat condition.

EFFECTS ON RECREATIONAL OPPORTUNITIES

Hunting Opportunities

The proposed project will continue to provide pronghorn antelope hunting opportunities in California. Opportunities to hunt pronghorn antelope should increase as the statewide pronghorn population increases. The opportunity to hunt pronghorn antelope is a popular one, with 8,000-14,000 applications being received each year. In recent years, about 75 percent of the successful applicants harvested a pronghorn.
antelope. The proposed project will provide hunting opportunities consistent with sections 203.1, 207(d), and 331, Fish and Game Code, as well as the wildlife conservation policy in Section 1801, Fish and Game Code.

However, should the pronghorn antelope population decline suddenly, hunter opportunity may be temporarily reduced or eliminated. In the unlikely event of a significant decline that jeopardizes the future of pronghorn antelope in California, the Commission may take emergency action to curtail or eliminate pronghorn antelope hunting.

Non-Hunting Opportunities

Non-hunting uses of pronghorn antelope (i.e. viewing, photography, nature study) are not likely to be significantly affected by regulated pronghorn antelope hunting. Nor is the proposed project likely to impair the non-hunter's ability to enjoy the outdoors, the pronghorn antelope resource, or its habitat, because the non-hunter is not excluded from the project area. Also, the non-hunting user will have the opportunity to enjoy pronghorn antelope under non-hunting conditions in the project area for at least 10 months of the year and for the entire year in areas of the State where pronghorn antelope hunting is not proposed.

The proposed project should not significantly affect the non-hunting public, because the number of hunters in the field at any one time (established by quotas for each season and area) will result in very low hunter density in the limited areas open to hunting.

EFFECTS ON OTHER WILDLIFE AND PLANT SPECIES

The Commission has listed a number of plant and animal species as threatened or endangered (sections 670.2 and 670.5, Title 14, CCR; also see Table 7). Based on the following information, no significant effect on listed species or their habitat is expected from the proposed project.

Listed threatened and endangered plant species are largely absent from habitats occupied by pronghorn antelope in the project area (Chapter 3). Any browsing pressure that may occur on such plants would likely be temporarily reduced by the harvest of pronghorn antelope resulting from the proposed project. The proposed project is not expected to have measurable short- or long-term impacts on listed avian or mammalian species. Threatened and endangered animals and natural communities in the project area were considered in the evaluation of significant impacts. Historically, no conflicts have been identified involving pronghorn antelope hunting and listed (or other) species. Because of the short hunting season, the limited number of hunters in the field, the specific location and time of the hunts, and an optional pre-hunt orientation, it is unlikely that threatened or endangered plants and animals will be adversely impacted as a result of the proposed project.
The small number of pronghorn antelope taken will not remove a significant food supply for carnivores. The only significant predators of pronghorn are coyotes and, to a small degree, bobcats and golden eagles (Salwasser 1980). Proposed harvest strategies may benefit golden eagles and coyotes by increasing fawn production and availability (fawns are susceptible to predation by raptors while adults generally are not). Lead poisoning has been a chronic and significant cause of migratory bird (primarily waterfowl) mortality associated with hunting in some areas of North America. Birds ingest spent lead shotgun pellets and scavengers may ingest fragments of lead bullets in carcasses or gut piles (Fry 2003). The ingested lead is converted to soluble form, and absorbed into tissues, which can have lethal effects. Secondary poisoning of predatory birds can also occur when they feed on birds carrying lead pellets embedded in body tissues (Fry 2003). The USFWS has mandated the use of nontoxic shot for waterfowl hunting. The use of nontoxic bullets is not required for the hunting of pronghorn antelope. Zones 1-6 are not within condor range; however, the areas are within the range of bald eagles. Since the hunts occur in August and September, the Department believes it will have no impact upon the bald eagles although hunters in the condor range are urged to use nontoxic bullets.

The dispersed hunting effort and resulting scattered bullet deposition over vast acreage make it unlikely that lead bullets would ever become concentrated enough to present any significant hazard to wildlife. Therefore, the Department does not believe that the use of lead bullets for hunting pronghorn antelope will result in any significant adverse environmental impacts.

Impacts on carrion eaters will be insignificant because of the low number of pronghorn antelope taken to provide a source of carrion on these ranges. Some forage overlap exists between pronghorn antelope and other herbivores, but the proposed project is not expected to affect this relationship. Impacts of livestock grazing greatly overshadow hunter impact in the proposed project area. The Department has analyzed potential adverse threats to endangered and threatened species and concluded there would be no significant effects from the proposed project on endangered or threatened species. Historically there have been no adverse affects on endangered or threatened species resulting from pronghorn antelope hunting.

EFFECTS ON ECONOMICS

The proposed project has the potential to result in minor beneficial economic impacts to small communities near the proposed hunt areas. Local effects may involve minor increases in economic activity, resulting from hunters purchasing goods and services from local merchants. This spending is likely to generate additional retail sales, income, and possibly short-term employment in businesses such as motels, restaurants, and retail stores. It is logical to assume that effects would be more substantial and measurable in small communities near hunt areas, such as Alturas and
Susanville, than they would be in large cities. However, the proposed project is not expected to result in significant physical change, either direct or indirect, which would produce significant negative environmental impacts.

Fiscal effects include direct public expenditures and revenue generation associated with the proposed project. The project will be administered by the State. Revenue will be generated by the fees from public applications ($7.00) and license tags ($99.75), the sale of PLM license tags ($150 for buck antelope), and fund-raising tags. In recent years, the Department has received an average of over 10,000 applications per year for pronghorn antelope license tags (1988-present data, Department of Fish and Game, Sacramento, California). Direct revenue from applications and license tags is expected to exceed $125,000 in 2004. Since 1992, the sale of 43 fund-raising license tags and 303 PLM license tags provided approximately $158,350 and $36,375, respectively. Revenue generated from the proposed project would be greater than the State’s costs to administer the program. The revenues shall be expended for the management of pronghorn antelope (i.e. surveys, studies, translocations, etc.), enforcing Section 331, Fish and Game Code, and processing of hunting applications (Appendix 1).

Recreational use benefits measure the dollar value that hunters place on having the opportunity to hunt pronghorn antelope (Loomis et al. 1985). These benefits are equivalent to the dollar amount that hunters would be willing to pay for this activity over and above what they have to pay in expenses (license, application, and tag fees). Because the demand for pronghorn antelope tags exceeds the supply, most hunters in California will not have the opportunity to hunt pronghorn antelope. If provided the opportunity, however, the activity value to hunters would be measured as their collective or aggregate willingness to pay, less the cost required to participate. Although no specific data are available to measure the recreational use benefits associated with the proposed project, the existence of these benefits should be recognized. In Montana, for example, hunters spent an average of $114 per trip in 1985, or about $50 per day (Loomis and Cooper 1988). In Idaho, the net value to hunters for 90 permits was estimated at $265,000 (Loomis et al. 1985).

Although direct revenue to the state (from licenses, applications and tags) resulting from the proposal project appears insignificant, the cumulative economic effect of big game hunting nationwide is very significant. During 2001, trip and equipment expenditures for big game hunting nationwide totaled 10.1 billion dollars (United States Fish and Wildlife Service, 2002). Thus, the proposed project is a small part of a national recreational activity of great economic value.

EFFECTS ON PUBLIC SAFETY

Since 1978, the Department has received no reports of deaths and only one report of an injury related to hunting pronghorn antelope in California. This does not diminish the fact that people have died or been wounded while hunting other big game...
animals, such as deer (Department of Fish and Game, Conservation Education and Enforcement Branch files). Data indicate, based on the total number of licensed hunters in California and the annual number of accidents, there is roughly a .0015-.00425 percent chance of being killed or wounded while hunting deer and a much lower chance of being killed or wounded while hunting pronghorn antelope. Additionally, Department records show that no non-hunting injuries or deaths have occurred as a result of pronghorn antelope hunting. As with any outdoor activity, there is always a risk of injury or death. However, the probability of being injured while hunting pronghorn antelope is extremely low. This good safety record is due, in part, to the requirement that all hunters must successfully pass a hunter safety education course prior to receiving a hunting license.

GROWTH-INDUCING IMPACTS

The proposed project is not likely to foster economic or human population growth in the area because of the short-term, transient nature of the project and its wide distribution in the area (see “Effects on Economics”). Rather, the project should provide a limited amount of economic benefit to local economies for services. This would be maintaining the level of impact as in previous years.

SHORT-TERM USES AND LONG-TERM PRODUCTIVITY

The proposed project allows for a limited pronghorn antelope harvest, intended to stabilize the population within levels identified by the Department’s management objectives. The actual harvest will likely be less than the final tag quota because hunter success is expected to be less than 100 percent. This short-term use will remove individuals and reduce competition for forage, but will not reduce long-term productivity. Long-term productivity is maintained by reducing the herd to below habitat carrying capacity through regulated hunter harvest.

If the proposed project is delayed, overtime the pronghorn antelope population may increase and exceed management objectives. Delaying the proposed project could cause range deterioration, increase depredation problems and increase competition with livestock, feral horses, and deer. It is expected that fawn-to-doe ratios will decline if the proposed project is delayed for a significant time.

CUMULATIVE IMPACTS

Discussion of potential cumulative impacts is addressed for the project area as a whole. Plant communities within the project area are influenced by similar ecological factors (wildfire, precipitation, and drought). Land uses are similar throughout, and potential impacts generally are the same. Thus, any specific cumulative impacts which could occur in any one area are also expected for other areas under the same conditions. Cumulative effects discussed herein are effects of the proposed project in combination with other factors that affect pronghorn antelope and the environment.
Effects of Habitat Loss and Degradation

Negative effects of livestock grazing have decreased since the adoption of the Taylor Grazing Act for Federal land management agencies in the 1930s. Range livestock grazing has become less destructive since the 1930s because of more environmentally sound management. Pronghorn antelope populations have responded favorably to this change in management practices, and while pronghorn antelope numbers would likely increase with complete removal of livestock from the public range, that is not the Department's objective.

Changes in habitat are not expected to be significant in the project area during the next 10 years (Northeastern California Pronghorn Antelope Management Plan, Department files). About one-half to two-thirds of the pronghorn antelope range is public land administered by the BLM and USFS. The majority of pronghorn antelope habitat on public land consists of Great Basin sagebrush-scrub, Alkali desert scrub, Pinyon-juniper, and annual grassland vegetation communities. The Department, USFS, and BLM have habitat improvement and acquisition projects and plans in place. Land-use practices that could affect pronghorn antelope range, such as livestock grazing and vegetation conversion on public lands, are not expected to change significantly in the near future. The fact that most of the project area is publicly owned and managed by Federal agencies will help ensure that land-use changes are minimal.

On private land, increased alfalfa production would likely benefit pronghorn antelope, whereas residential development would have a negative effect. No major changes in private land-use patterns are expected in the near future. The long-term outlook for pronghorn antelope habitat on public land in California is stable to improving, as evidenced by the pronghorn antelope population trend and management priorities of the BLM and USFS. In conjunction with the proposed project, cumulative impacts of habitat degradation are not expected to have significant adverse impacts on pronghorn antelope populations. In combination with the proposed project, grazing by livestock and potential habitat changes will not likely have significant cumulative adverse effects. In fact the removal of individual animals as a result of the project may improve the pronghorn antelope habitat and decrease degradation in the project area.

Effects of Private Lands Wildlife Habitat Enhancement and Management Areas Program

The PLM Program was authorized by the Legislature to protect and improve wildlife habitat by encouraging landowners to manage their property to benefit fish and wildlife (sections 3400-3409, Fish and Game Code). The PLM Program is administered by the Commission (Section 601, Title 14, CCR). Economic incentives are provided to landowners through biologically sound, yet flexible, seasons for game species, resulting in high-quality hunting opportunities which may be marketed by the landowner in the form of fee hunting or other forms of outdoor recreation.
To become licensed for the PLM Program, a landowner must submit an application package, which includes a comprehensive management plan and a nonrefundable processing fee designed to meet all costs of program review. Department personnel review the package and management plan to ensure that proposed habitat enhancements benefit wildlife and harvest strategies comply with accepted goals for the management of the game species involved. After Department approval, the application package is heard by the Commission for final consideration and approval. Once approved, a license is valid for five years.

However, at the end of each calendar year, participants must submit an annual renewal package which includes a report of the completed habitat management activities and the number of animals harvested during the previous year. In addition, Department staff conducts annual inspections of each PLM to determine compliance with regulations and completion of required habitat improvements specified in the management plan and annual report. The Department and the Commission evaluate the renewal package and the compliance inspection report. The Commission then provides final approval and authorizes PLM hunting license tags for the next year.

Habitat Modification

Management plans developed by each participant in the PLM Program contain habitat enhancement goals and objectives to be accomplished over the term of the five-year license. Habitat projects outlined in such plans are directed toward improving habitat for game and non-game species alike. The ultimate goal of these habitat improvement practices is to enhance or stabilize (under adverse ecological conditions) wildlife populations on the area.

The PLM program has been successful as an incentive for landowners to protect or improve wildlife. Habitat improvements implemented on licensed areas include controlled burns, reduced or deferred grazing, water source improvement, planting of forage or cover crops, construction of brush piles as escape cover for smaller species, and development of wetlands, marshes and riparian areas. Such habitat improvements directly benefit numerous non-game wildlife species. Numerous pronghorn antelope habitat improvements have been accomplished, as evidenced by the results of the yearly PLM habitat inspections conducted by the Department (Department of Fish and Game, Wildlife Programs Branch, Sacramento, California).

Harvest Discussion

Some members of the public do not readily accept fee hunting as an appropriate use of wildlife resources and are concerned that fee hunting and special season privileges are provided to landowners to the detriment of the State’s wildlife resources. Harvests from both the PLM Program and public hunts are included in the Department’s analysis of the effects of harvest on the project areas.
Table 9 lists pronghorn antelope tag allocations and harvests under the PLM and Public hunting programs. Since 1990, approximately five percent of California’s pronghorn antelope tags have been allocated to the PLM Program. Within a given year, the PLM tag allocation in northeastern California may not exceed 10 percent of the total allowable harvest for public hunts. The PLM pronghorn antelope tag allocation and harvest is small compared to the total California pronghorn antelope tag allocation and harvest.

Based on the number of pronghorn antelope harvested on PLM’s and the licensees’ management plans and habitat improvements, no negative cumulative effects are attributed to the PLM harvest. Moreover, the PLM harvest was considered by the Department when evaluating the effects of the proposed project and alternatives in chapters 4 and 5, respectively.


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<tbody>
<tr>
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<td>70</td>
<td>25</td>
<td>32</td>
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<td>41</td>
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<td>11</td>
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<td>12</td>
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<td>47</td>
<td>23</td>
<td>26</td>
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<td>30</td>
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<td>16</td>
<td>14</td>
<td>10</td>
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<tr>
<td>PLM Hunter Success %</td>
<td>56</td>
<td>65</td>
<td>67</td>
<td>92</td>
<td>84</td>
<td>70</td>
<td>68</td>
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<td>226</td>
<td>493</td>
<td>454</td>
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<td>275</td>
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<td>1,167</td>
<td>195</td>
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<td>78</td>
<td>78</td>
<td>74</td>
<td>76</td>
</tr>
</tbody>
</table>

The limited PLM harvest, together with the habitat improvement and maintenance activities conducted on each area, suggests that there have been no negative cumulative effects on pronghorn antelope populations. Rather, habitat improvements accomplished specifically for pronghorn antelope and other species have had a positive net effect. Based on its analysis, the Department has determined that the PLM Program, as part of the proposed project, will not have a significant adverse cumulative effect on pronghorn antelope populations.
Effects of Drought

Regions of California periodically receive less than normal precipitation or snowfall (i.e. undergo drought periods). These drought cycles are eventually broken, and in intervening years, record snow and precipitation levels can be recorded. Hence, pronghorn antelope may be periodically and temporarily affected by drought. This does not deviate from the normal historical occurrence of drought. With the pronghorn antelope’s proximity to agricultural development and water development on public land in the project area, adverse effects of drought on pronghorn antelope populations have been minimized. Severe changes in agricultural use can occur in an area as a result of drought, which may subsequently affect pronghorn antelope. However, the possibility of drought impairing an established pronghorn antelope population from maintaining itself in a healthy, viable condition is unlikely.

If drought has significant adverse effects on pronghorn antelope, these will be shown by poor condition and decreased survival of individuals, declining production and survival of young and declining population numbers. Such trends can occur periodically with some populations. But, there are no data to indicate that drought has significantly impacted pronghorn antelope in the project area.

Effects of Wildfires

There is a possibility that, under prolonged drought, fire could become more prevalent in the project area. However, it is also possible that fire would become less prevalent in pronghorn antelope habitat if drought inhibits growth of annual plant species. Annual plants serve as the fine fuels which are necessary to carry a fire through sagebrush range. Impacts of wildfire may be positive or negative for pronghorn antelope. While they may derive forage benefits from the conversion of shrubland to grassland as a result of fire, if the fire is too large in area, the reduction in low shrub cover (for hiding fawns or winter feed) can be detrimental.

In 1999 there were numerous wildfires caused by lightning within the project area during the hunting season. Although these wildfires and the resulting suppression actions may have disrupted hunting activities, the pronghorn antelope population was not adversely affected.

Based on a review of historical records from agencies such as the BLM, USFS, and California Department of Forestry and Fire Protection, the possibility of wildfires impairing the statewide pronghorn antelope population from maintaining itself in a healthy, viable condition is unlikely. The Department has excellent long term population data for pronghorn in northeastern California (Figure 9), which document population growth since the 1940s and are strongly indicative that events such as wildfires, severe winters and drought have not had long term adverse effects on pronghorn antelope. No significant effects of fire in concert with hunting are expected to affect the pronghorn antelope population.
Effects of Disease

Historical data indicate that pronghorn antelope are remarkably free of disease (Department of Fish and Game, Wildlife Investigations Lab data, Rancho Cordova, California). The Department routinely collects blood samples from captured pronghorn antelope. During the past 20 years, the Department has analyzed pronghorn antelope blood samples to systematically determine the prevalence of disease and to assess the general health of the State's pronghorn antelope resource.

Currently, some members of the public are concerned about the importance of chronic wasting disease (CWD) to wildlife. CWD has been detected in cervids (primarily deer) from several other states, but to date, has not been detected in California. It appears that the potential for pronghorn antelope in California to be affected by CWD is minimal, at present.

There are no data available to indicate a potential for pronghorn antelope in the project area to be significantly impacted by a major disease outbreak. The proposed hunts were developed using information collected over a very long time frame (1942-present.) The information was collected from herds that were experiencing mortality from the limited impacts of disease and other non hunting factors. Disease, in conjunction with the mortalities associated with hunting and other factors does not adversely impact pronghorn antelope (Salwasser 1980, Autenreith 1983, Department of Fish and Game, Wildlife Investigations Lab, Rancho Cordova, California).

Effects of Illegal Harvest

Illegal take of pronghorn antelope is low and is considered to have no significant impact on the population (Lt. Mike Wolters, Alturas, California, unpublished data, January 1996). The Department's field patrol officers only issue a few citations each year for the illegal take or possession of a pronghorn antelope (see Table 10).

Table 11 shows the number of warden and lieutenant positions in 2003 listed by selected Fish and Game divisions/regions. The project area is within regions 1, 4, and 5. The wardens and lieutenants are usually assigned to particular areas and duties, but may be assigned to cover special projects, including aerial and ground surveillance during hunt periods. Numbers in Table 11 represent decrease in enforcement staff over the prior year, due primarily to budgetary reductions. However, this reduction is not expected to have a significant impact on enforcement procedures. Although the number of Department enforcement personnel may have declined from levels of previous years, the overall numbers of hunters in the field has declined concomitantly, as shown by the decline in license sales. Pronghorn antelope hunting occurs primarily in Region 1, where the reduction in enforcement personnel is minimal. Therefore, the project is not likely to have a significant effect on large game mammal populations when combined with the effects of poaching and fewer wardens in the field.
Table 10. Citations Involving Hunting Pronghorn or Illegal Take of Pronghorn

<table>
<thead>
<tr>
<th>Year</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
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<td>1</td>
</tr>
<tr>
<td>1992</td>
<td>4</td>
</tr>
<tr>
<td>1993</td>
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<td>2002</td>
<td>0</td>
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<tr>
<td>2003</td>
<td>0</td>
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(Department of Fish and Game, Redding, California)

Table 11. Number of Warden and Lieutenant Positions Listed by Region, 2003 Region/Division

<table>
<thead>
<tr>
<th>Class</th>
<th>Region 1</th>
<th>Region 2</th>
<th>Region 3</th>
<th>Region 4</th>
<th>Region 5</th>
<th>Region 6</th>
<th>OSPR</th>
<th>HQ</th>
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<td>8</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>46</td>
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<tr>
<td>Captain/Chief</td>
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<td>5</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>32</td>
</tr>
</tbody>
</table>

HQ=Headquarters, OSPR=Oil Spill Prevention and Response
In addition to Department personnel, other Federal, State, and local law enforcement officers have the authority to enforce the Fish and Game Code and Title 14, CCR. Approximately half of the proposed project area is within lands patrolled by BLM and USFS law enforcement personnel. The county Sheriff, local police, and other State peace officers (California Highway Patrol, State Park Rangers, State Foresters) may be called upon to respond to violations regarding illegal take of California wildlife. In addition, the Department provides a well-publicized, toll-free phone number (1-800-952-5400) for citizens to anonymously report possible violations. This program may encourage a reluctant individual to report a violation.

More pronghorn antelope appear to be lost to freak accidents (e.g., collisions with vehicles or trains) than to illegal take. Illegal harvest, especially out of season, is a rare occurrence and is not a significant adverse impact on the pronghorn antelope population.

**Effects of Depredation**

The Department does not have the authority to issue permits to kill pronghorn antelope causing property damage (Section 4181, Fish and Game Code). Because of this, management activities such as hunting and translocating pronghorn antelope are used to minimize private property damage problems.

**Effects of Vehicle-Caused Mortality**

The number of pronghorn antelope killed by vehicles is not well documented. Unlike deer, very few pronghorn antelope appear to be killed by automobiles (although at least 10 pronghorn were killed by a vehicle on Interstate Highway 5 outside the proposed hunt areas in Glenn County during 2001). During severe winters in northeastern California, pronghorn antelope have utilized the cleared railroad tracks for bedding areas and trails. Trains have killed pronghorn antelope that were on the tracks (Stone, Department of Fish and Game, Redding, California, unpublished data, January 1993). No significant effects of vehicle-caused mortality in concert with hunting are expected to adversely affect the pronghorn antelope population.

**WELFARE OF THE INDIVIDUAL ANIMAL**

**Introduction**

Section 203.1, Fish and Game Code, provides as follows: "When adopting regulations pursuant to Section 203, the Commission shall consider populations, habitat, food supplies, the welfare of individual animals, and other pertinent facts and testimony."
Consideration of pronghorn antelope populations, habitats, food supply, and other facts pertinent to the anticipated effects of the project on pronghorn antelope are contained in this environmental document that the Department has prepared to satisfy its obligation to comply with CEQA. This section deals only with considerations of individual animal welfare. This subject is discrete and distinct from those included in the CEQA-mandated environmental analysis. It is an additional obligation imposed on the Department by the Fish and Game Code. This chapter is included in this document for convenience and to permit the public and interested persons to consult a single document in order to read and evaluate the Department’s analysis.

Effects of Various Methods of Take

Section 353, Title 14, CCR, describes the methods authorized for taking pronghorn antelope. The Commission has authorized the use of rifles using center fire cartridges with soft nose or expanding bullets; bow and arrow; and wheel lock, matchlock, flintlock, or percussion type muzzle-loading rifles of at least .40 caliber. Historically, these methods have been used to take a variety of big game species throughout North America. With the Commission’s specified equipment restrictions these methods are efficient and effective for taking pronghorn antelope.

Section 354, Title 14, CCR, contains provisions for the use of archery equipment as a method of take. It restricts arrows to those with a broad head type blade that, when open, will not pass through a whole seven-eighth of an inch in diameter. In addition, bows used for pronghorn antelope must be sufficient to cast a legal hunting arrow a horizontal distance of 130 yards. These restrictions are designed to ensure that animals are shot with equipment capable of killing efficiently. Recently, the efficacy of archery equipment for the take of big game has been questioned. In particular, concern has been expressed that animals taken with archery equipment experience undue suffering. In order to fully disclose the various aspects of the controversy about the use of archery equipment to take big game, the Department has conducted a thorough review of the archery wounding issues and archery literature later in this section ("Effects of Wounding").

Few premises are more obvious than that animals can feel pain [Journal of the American Veterinary Medical Association (JAVMA) 1987, page 1,186], regardless of the method of take. Determining whether an animal is experiencing pain or suffering is difficult. Despite this difficulty, many manifestations of pain are shared by many animal species (JAVMA 1987, page 1,186). The intensity of pain perceived by animals could be judged by the same criteria that apply to its recognition and to its physiologic and behavioral observations in human beings. If a condition causes pain in a human being, it probably causes pain in other animals (JAVMA 1987, page 1,188).

Suffering is a much used and abused colloquial term that is not defined in most medical dictionaries. Neither medical nor veterinary curricula explicitly address suffering or its relief. Therefore, there are many problems in attempting a definition.
Nevertheless, suffering may be defined as a highly unpleasant emotional response usually associated with pain and distress. Suffering is not a modality, such as pain or temperature. Thus, suffering can occur without pain; and, although it might seem counter-intuitive, pain can occur without suffering (JAVMA 1987, page 1,188).

There are anecdotal accounts of pronghorn antelope being shot and exhibiting no visible signs of pain. However, the Department assumes that pain results from substantially all incidents of animals being shot, either by arrows or bullets. The degree of pain experienced by individual animals probably ranges from little or no pain to significant pain.

**Bullets**

In the case of bullets, it has been determined that center fire bullets transfer sufficient energy to the animal to cause fatal wounds and traumatic shock adequate to bring about quick death. Despite these performance standards, time to death is affected by shot placement. An animal shot with a firearm in the heart-lung area or a critical portion of the central nervous system, such as the brain or spinal cord, will generally die in less than 22.3 seconds, with a range from one to 26.4 seconds (Ludbrook and Tomkinson 1985, page 13). An animal shot in a less vital area may not die for a considerably longer period of time, ranging from 240 to 360 seconds, depending on the location (Ludbrook and Tomkinson 1985, page 13). Some shots in non-vital areas wound but do not kill the animal (Benke 1989).

**Archery**

In the case of archery equipment, it has been determined that bows transfer sufficient energy to an arrow (fitted with a razor-sharp broadhead) to cause a fatal wound by cutting arteries and veins resulting in blood loss. In addition to severing the blood supply, arrows shot through the lungs cause the lungs to collapse, causing rapid death. Broadheads can also cut through softer bones, such as ribs. However, arrows shot from even a very heavy bow (draw weight) will rarely penetrate large bones found in the shoulder, hips, head, and neck.

Despite these performance standards, time to death is affected by shot placement. An animal shot with an arrow in the heart-lung area or spinal cord will generally die in less than 29.7 seconds, with a range from one to 36.2 seconds (Ludbrook and Tomkinson 1985, page 13). An animal shot in a less vital area may not die for a considerably longer period of time, ranging from 18 to 397 seconds, depending on the location (Ludbrook and Tomkinson 1985, page 13). Some shots in nonvital areas wound but do not kill the animal (Benke 1989). Archery wounding issues will be discussed later in this section ("Effects of Wounding").

Much public controversy exists over the effects of using archery equipment for taking pronghorn antelope. This is evidenced by the successful legal action taken in
1990 to stop the archery bear season. In an effort to disclose the available information regarding the effects of archery hunting, the Department has reviewed the archery literature. While little specific information has been published on archery take of pronghorn antelope, information is available on the effectiveness of archery equipment for taking deer (primarily white-tailed deer). The effectiveness of archery equipment for taking mammals such as pronghorn antelope and deer is discussed further in the "effects of wounding" section.

The Commission has authorized an archery-only season for pronghorn bucks annually since 1982. An archery-only season was authorized for does in 1991, 1992, 1998 and 1999. Average hunter success during the archery-only season is relatively low, and the harvest has been a minor portion of the total pronghorn antelope harvest (i.e. less than three percent; see Table 3). Based on the archery analysis and the low level of archery hunting, the Department does not expect significant effects due to archery or rifle as a method of take.

Use of Dogs

California law (Section 357.1, Title 14, CCR) prohibits the use of dogs while hunting pronghorn antelope. The use of dogs is not applicable to this issue.

Chase Related Effects

It is possible that an individual pronghorn antelope will be chased by hunters. Such a chase would probably cause the animal to suffer anxiety, fear, and stress. Anxiety is generally defined as an unfocused response to the unknown (JAVMA 1987). Fear is a focused response to a known object or previous experience (JAVMA 1987, page 1,187). Stress is commonly defined as the effect of physical, physiologic, or emotional factors that induce an alteration in an animal's homeostasis or adaptive state.

Stress and its subsequent responses may be categorized in three ways. These are: (1) neutral stress - this form of stress is not intrinsically harmful and evokes responses that neither improve nor threaten the animal's well being; (2) eustress - stress that involves environmental alterations that in themselves are not harmful to the animal but which initiate responses that may in turn have potentially beneficial effects; and (3) distress - stress that creates a state in which the animal is unable to adapt to an altered environment or to altered internal stimuli (JAVMA 1987, pages 1,187-1,188).

Animals may experience anxiety and fear in response to naturally occurring stimuli. For example, pronghorn antelope are naturally chased by predators. Hunt-related pursuit by humans may subject the individual to anxieties or fears that are qualitatively different from naturally occurring anxieties and fears. It is assumed that pronghorn antelope, if given a choice, would choose not to be pursued. In this sense, pursuit may be viewed as having an adverse effect on individual animal welfare.
The three recognized forms of stress (JAVMA 1987, pages 1,186-1,187) have different manifestations. Eustress is not applicable. The project will not alter the individual pronghorn antelope's environment. Pronghorn antelope have evolved an exceptional physical ability to flee from pursuers. Consequently, pursuit by hunters does not represent a change to the pronghorn antelope's natural environment sufficient to prompt further evolutionary responses.

Neutral stress and distress are both potentially relevant and adverse. Neutral stress would be exhibited by an animal fleeing from hunters and would probably continue up to the point at which the pursuit ended. Presumably, the pursuit would end when the animal evaded its pursuers or was shot by the hunter. Effects of wounding will be discussed separately.

Additionally, behavior exhibited by pronghorn antelope during pursuit may indicate that the stress of the pursuit is lessened by its own curiosity. Pronghorn antelope are known to approach a hunter after the pursuit. Although pronghorn antelope may quickly leave an area during pursuit, they often immediately return.

A pursued animal could experience some degree of distress. The distress could become more acute if the animal were cornered or otherwise became unable to successfully flee. If the stress-inducing stimuli are short-term, the animal's responses should not result in long-term harmful effects. Prolonged or excessive stress may result in harmful responses, such as abnormal feeding and social interaction behavior and lowered reproductive success. It has been reported that long-term distress in animals can result in pathologic conditions, such as gastric and intestinal lesions, hypertension, and immuno-suppression (JAVMA 1987, page 1,188).

Both neutral stress and distress may be viewed as adverse effects on the welfare of individual animals. Neutral stress resulting from the project may be different from naturally occurring neutral stress because of the possibility of pursuit by hunters. However, this potential stress is not expected to have long-lasting effects, because each chase presumably terminates with the pronghorn antelope's escape or death. Although distress is capable of producing long-term adverse effects, the project is not expected to have that result, because the hunting season is of limited duration and any distress-inducing conditions will be temporary.

Effects of Wounding

Because pronghorn antelope inhabit open range, wounding loss is extremely low. Animals shot do not often escape from the view of the hunter. A summary of wounding loss, as reported by California pronghorn antelope hunters, indicates that less than 10 percent of the animals shot are wounded and lost in a given year (Figure 14).

Cumulatively, wounding loss has been less than two percent of all animals shot. The following is a detailed summary of the effects of wounding. Its inclusion here is to
address the issue of wounding by archery and rifle equipment. To the Department's knowledge, there have been no recent scientific studies from other states of wounding effects on pronghorn antelope under the conditions of the pronghorn hunts in California.

Wounding is the most significant adverse effect that the project will have on the welfare of individual animals. As a result of the project, individual animals may be wounded.

Wounding is a generic term that refers to any nonlethal injury (McCaffery 1985). The nature of the specific wounds ranges from superficial to seriously disabling (Nettles et al. 1976, Burke et al. 1976, Lohfeld 1979). In many cases, a seriously disabling wound may lead to the animal's death from secondary causes, such as infection or disability that prevents the animal from successfully foraging for food, evading natural predators, or performing other functions necessary to its survival (Nettles et al. 1976). The wounding of animals is an unavoidable result of hunting. Wounding rates vary considerably, depending on the type of equipment used (guns or archery equipment). Death caused as a result of these wounds (wounding loss) varies as well.

Some authors suggest that archery wounding rates and loss are as high as 80 to 100 percent of the legal take (Boydston and Gore 1987, Benke 1989, Pacelle 1990). Others believe that, while archery wounding rates can be as high as 50 percent of harvest (Downing 1971, Herron 1984), wounding loss is less than 15 percent (Lohfeld 1979, Herron 1984, Ludbrook and Tomkinson 1985, Fuller 1990).

The effects of wounds on the individual animal are the subject of much debate. Benke (1989) states that broadheads are ineffective in killing deer and thus cause much pain and suffering. The contrary view of this effect is offered by Georen (1990a) and Dr. Bruce Stringer (International Bowhunter Educational Manual 1989, pages 33-34). They believe that lethal wounds result in quick, near painless death due to blood loss. Moreover, Nettles et al. (1976) asserts that long-term suffering resulting from traumatic injury probably affects very few deer.

Existing evidence is inconclusive as to the extent to which archery wounds lead to infection. Benke (1989) and Pacelle (1990) state that a common cause of death is septic infection caused by arrow wounds. They contend that arrows generally inflict dirty wounds, because numerous hairs are drawn into the wound. Bacteria from the clipped hairs begin multiplying in the wound channel and eventually cause death.
Figure 14
Reported Pronghorn Antelope Wounding Loss 1970-90, as a Percentage of Animals Shot
The Department was unable to identify studies that have been published that measure or evaluate whether these wounds cause septic conditions. It has been suggested (Georen 1990a), however, that non-lethal wounds cause relatively clean wounds and that such wounds bleed profusely.

It is clear that wounding causes pain. The extent or level of this pain (considering the type of wounds) felt by the animal is unclear and the information available is inconclusive.

Archery Wounding Issues

The public, as well as wildlife managers and scientists, have raised numerous questions regarding archery wounding. The issue of archery wounding is controversial. These questions have created public concern over the effects of archery wounding on big game populations and the welfare of individual animals. In order to address these concerns, the Department has identified and analyzed the key archery wounding issues. These issues were identified based on the concerns raised in scoping sessions, past testimony at Commission meetings, previous lawsuits, and the literature (scientific and popular). The major archery wounding issues are as follows:

1. **Fewer Animals are Taken with Archery Equipment than with Firearms** - In California, the archery-only pronghorn antelope harvest constitutes less than 3 percent of the total harvest (Table 3). Studies by Downing (1971), Stormer et al. (1979), Langenau and Aho (1983), Fuller (1990), and others have found similar results. They report that fewer animals are taken with bows than with guns.

2. **There are Fewer Bowhunters than Firearm Hunters** - Approximately three percent of the applications for pronghorn antelope hunts are from hunters wanting to hunt in the archery-only season. While hunters possessing a general season pronghorn antelope tag can hunt with either bow and arrow or rifle, tag returns indicate few, if any, elect to use archery equipment during the general season (California Department of Fish and Game data, Sacramento, California).

3. **Bowhunters Have a Lower Success Rate than Firearm Hunters** - General season pronghorn antelope hunters have averaged above 70 percent success for bucks. Archery-only season hunters have averaged less than 30 percent success for bucks (1980-present Department of Fish and Game data, Sacramento, California). Similar results were found for other states by Downing (1971), Stormer et al. (1979), Langenau and Aho (1983), Benke (1989), Fuller (1990), Lemke (1990), and others.

4. **Bowhunters Generally Spend More Time in the Field Per Animal than Firearm Hunters Do** - During the 2001 pronghorn antelope season in California, archers spent 7.7 days in the field per animal taken (based on report cards; n=7),
whereas rifle/black powder hunters spent 3.3 days in the field per animal taken (n=176 report cards). Studies in other states have established several relationships related to archery deer hunting. Research by Herron (1984) found an average of 7.5 deer was harvested per 100 bowhunter days. Similarly, Severinghaus (1963) found that deer harvested per 100 hunter days for archery hunting on the Howland Island Game Management Area in New York ranged from one to 16, depending on the year. Conversely, he found that firearm hunting resulted in a range of 13-66 deer per 100 hunter days in the same area. Langenau and Aho (1983), in their review of the relative impact of firearms and archery hunting on deer populations, reported that "about 17 percent of all deer hunting in the United States during 1976 was done with bows: 11.4 million days of archery deer hunting and 54.6 million days of firearm deer hunting."

5. **Archery Wounding Losses are Higher than Firearm Wounding Losses**
   Existing information is inadequate to establish exact percentages. Publications by Boydston and Gore (1987), Benke (1989), Pacelle (1990), and others state that broadheads (bowhunting in general) are an ineffective method of taking big game, and hence result in excessive (50-100 percent) wounding loss. Benke (1989) notes "that he personally wounded three or four animals for each one he killed." In addition, Benke contends that "archery wounding is the most denied problem in bowhunting and the most ignored problem in wildlife science." An opposite perspective on this issue is presented by Lohfeld (1979), Herron (1984), Ludbrook and Tomkinson (1985), and Fuller (1990). Ground search studies conducted by these researchers found that archery wounding rates ranged from seven to 40 percent. However, field verification to determine actual wounding loss for these hunts ranged from zero to 14 percent.

6. **Animals Generally Live Longer After Being Shot With an Arrow than After Being Shot With a Bullet**
   Existing information is inadequate to establish exact "time-to-death" measurements. Benke (1989) states that broadheads are very ineffective in killing deer. Specifically, he relates a personal experience where he watched and waited for 20 to 30 minutes for a spine/lung-shot buck to die. Being unable to "handle it any longer" he dispatched the animal with an arrow through the heart. Moreover, Pacelle (1990) states that animals shot with arrows routinely contract peritonitis or a septic infection, hence suggesting that death is slow. He also reiterates Benke's (1989) assertion that the average killing time of hunting arrows must be measured in days rather than hours or minutes.

   Ludbrook and Tomkinson (1985) provide data on immobilization time of animals shot with broadheads and rifles. They report that immobilization time of 17 animals shot with 60-pound compound bows with broadheads in the chest cavity averaged 30 seconds. This compares to 28 animals shot in the chest cavity with rifles becoming immobilized in 22.3 seconds. Compound bows dropped 32 animals within an average of 100 meters, while 17 animals shot with a .30/06 rifle died within an average of 70 meters. It is important to note that the
range of immobilization time from "drug-free" arrow hits found by Ludbrook and Tomkinson (1985) is similar to the findings of Causey et al. (1978), where succinylcholine chloride (SCC) tipped arrows were used (ranged from zero to 45 seconds).

Additional data on distance traveled after being hit by arrows is provided by Georen (1990a). Distances covered by the animals after being shot were correlated to shot placement. Hits in the head, neck, and spine had the highest frequency of animals covering less than 50 meters, while hits in the heart/lung area had the highest frequency of animals covering less than 100 meters.

7. **Broadhead Arrows Cause Less Trauma to Surrounding Tissues than Bullets** - Little disagreement exists on this issue. Work by Ludbrook and Tomkinson (1985) shows that, when an arrow fitted with a sharp broadhead strikes a nonvital area, a minimum of surrounding tissue damage occurs. They state that arrow wounds sustained by animals in nonvital places are most likely to heal completely because of the lack of extensive tissue damage compared to gunshot wounds. Similar conclusions can be drawn from data collected by the Lonestar Bowhunter Association (1989), where archers experienced "through" shots (total pass through of the arrow) on 46 of the 102 deer killed.

8. **There is Evidence that Slotted Broadhead Arrows Carry Hair and Other Surface Materials into the Wound Channel** - Existing evidence is inconclusive as to the extent to which this leads to infection. Benke (1989) and Pacelle (1990) state that a common cause of death is septic infection caused by arrow wounds. They assert that "arrows generally inflict dirty wounds, due in part to the structure of the most popular, multibladed broadheads." They suggest that slotted, multibladed broadheads drag numerous hairs into the wound channel. Thus, the bacteria from the clipped hairs begin multiplying in the wound channel and eventually cause death. Similarly, Boydston and Gore (1987) contend that "about all abdominally shot deer die a slow death due to peritonitis." However, in their technical report, Boydston and Gore (1987) do not provide any data where death by peritonitis is measured.

Wegner's (1990) article on wounded deer behavior in *Deer and Deer Hunting* states that "it should be pointed out that university researchers at Auburn University are currently studying the broadhead wound channels of eighty-six euthanized white-tailed deer. Their findings indicated that in 100 percent of the wounds clipped hairs are present that can lead to serious infection, thus casting doubt on this whole notion of clean wounds and unique survivability."

In an effort to gain more information on this study, a representative of the Department contacted the researcher at Auburn University (Dr. Causey). The work at Auburn University is concentrated on studying the broadhead wound
channel inflicted on carcasses of wild white-tailed deer (depredation kills). No data on infection were collected; hence no preliminary conclusions were reached. Information collected on these wound channels was restricted to the depth of penetration and amount of hair in the wound.

Dr. Causey's work concentrated solely on examining the ability of smooth-blade versus slotted-blade broadheads to carry hair into the wound. No assessment was made on the type or amount of bacteria associated with the hairs in the wounds. He stated that "anything written about his work beyond the results of the simple test of the two broadhead types was purely 'poetic license' on the part of the author." He made no attempt to determine if the wounds caused a septic condition or to speculate on deaths caused by hairs being drawn into the wound (Causey pers. comm.). He did state, however, that both types of broadheads did draw hair into the wound, with more hair being present with the slotted-type broadhead, but that the ultimate effect of this is unknown.

A contrary view of the notion that arrow wounds cause septic conditions is presented by Georen (1990a). Dr. Georen notes that "non-lethal broadhead wounds can cause a relatively clean wound." Such wounds bleed profusely, "with an inner cleaning effect" before bleeding is impeded by thrombosis, arterial spasm, coagulation, etc. He states that the local damage is free of contusion and normally heals quickly and without complications. Geist (1987) provides a biological perspective on the ability of cervids (deer family) to deal with infections caused by puncture wounds. This popular magazine article was based on his peer-reviewed journal article entitled New Evidence of High Frequency of Antler Wounding in Cervids (Geist 1986). The author examined hides from dead deer, elk, and moose. He found that the average buck deer or bull elk received 20-30 wounds per year. Wounds ranged from zero on young of the year to 225 on a 10.5-year-old moose. He concluded that puncture wounds are a very common natural occurrence. Geist (pers. comm.), commenting further on his results, noted that he doubts the relevance of his study to the problem of hair entering deep body wounds. However, he believes that "no doubt antler wounds are 'well inoculated' with dirt." Thus, antler wounds can be badly infected.

There is Evidence that Lethal Arrow Wound Channels Bleed Profusely, and Hence Animals Bleed to Death - Generally, animals must lose about 35 percent of their total blood volume in order to succumb to death. There is approximately one ounce of blood per pound of body weight in the circulatory system of animals like deer. Thus, a 100-pound pronghorn antelope would have about 100 ounces of blood in its system and would have to lose about 35 ounces (2.125 pints of blood) in order for death to occur. According to Dr. Bruce Stringer, veterinarian and Director of the Rio Grande Zoological Park, broadheads cause some level of shock. "Shock produces a numbing effect and the razor sharp broadhead probably causes little discomfort. As blood loss occurs, a near painless death follows."
Georen (1990a), in his article on the Mechanism of the Hunting Arrow, states that "An arrow with a broadbladed razorsharp point has a rapid mortal effect when penetrating the chest of game. This effect derives from a quick clearing of blood causing acute hypoxia, from suspended lung function or a combination of both." Dr. Georen states that "in the case of an arrow hit in the central lung area several of the lung arteries will invariably be cut. To some extent the bleeding time can be illustrated by water running from three hoses with an inner diameter of 0.5 cm and the pressure of the lung arteries of 0.5 liters will last six seconds."

10. **Evidence from Necropsy Studies Indicate that Relatively Few Animals Suffer from Crippling Injuries, Whether Caused Naturally or from Hunting** - Animals with natural or hunting-caused wounds appear to recover with little or no external manifestation of the injury. Nettles et al. (1976) reported on frequency of chronic debilitation of white-tailed deer from necropsy records on 1,002 animals collected for scientific purposes throughout the southeastern United States. The evidence of previous injury was only present in 76 deer (7.6 percent). Percentages of injured deer did not vary significantly according to sex, physical condition, or six-month periods associated with high or low hunting pressure. They stated that "the few deer which survive injury do not become debilitated, as evidenced by the fact that deer in poor physical condition comprised only 6.6 percent of all injured animals. Thus, long-term suffering resultant to traumatic injury probably affects very few white-tailed deer." They reported that five of the 1,002 deer examined (0.5 percent) showed signs of previous arrowhead wounds. Similar effects would be expected for pronghorn antelope. Similar results were reported by Burke et al. (1976) and Lohfeld (1979), where less than one percent of the animals taken by hunters showed signs of debilitating hunting wounds.

11. **In Order to Make Arrows More Lethal and Lessen Archery Wounding Losses, it has been Proposed that Archery Hunters be Required to Use SCC as an Alternative or Adjunct to Broadheads** - Causey et al. (1978), Boydston and Gore (1987), Benke (1989), and Pacelle (1990) all support the use of SCC as an alternative to render arrows more lethal, hence reducing wounding loss. Benke (1989), in The Bowhunting Alternative, presents the idea that using the drug SCC on broadheads will reduce wounding losses. The author utilizes personal opinion, personal experiences, and selected references from the literature to establish his conclusion.

"To render bowhunting even minimally humane," Benke advocates "the use of the tranquilizer SCC as a means of ensuring that the target animals will die quickly without needless misery." He was contemptuous of "elitists" who,
arguing that using such a drug diminishes the primal pleasure and athletic challenge of the sport, are willing to inflict needless suffering on their hopeless prey.

Causey et al. (1978), in a study of bowhunting white-tailed deer with SCC-treated arrows, found that the average elapsed time to knock-down time was 13 (ranged from zero to 45) seconds. This result was based on 42 observations of the 88 deer shot with SCC-treated broadheads (16 percent wound rate and three percent known crippling losses with SCC-treated arrows). The authors found that wounded deer traveled an average of 112 (ranged from zero to 376) paces (approximately 100 meters) after being struck by a treated arrow. They conclude that "the addition of SCC to the broadhead hunting arrow in the manner described herein greatly increases the killing efficiency of the bow and arrow. The question is whether the decreased crippling rate and increased recovery rate of deer shot with drug-treated arrows adequately compensates for any undesirable aspects of using these arrows."

There are several aspects of the drug issue, such as legality, humaneness, public safety, and ethics that need further discussion. There is some question about whether the use of such drugs is legal under Federal law, pending testing of the delivery system (SCC pod) by the Food and Drug Administration. Also, SCC is an extremely dangerous drug. Placing chemical substances on arrows could lead to the accidental death of a person coming into contact with the arrow.

Dr. Edward Often, Director of Toxicology in the Department of Emergency Medicine at the University of Cincinnati Medical Center and a member of the Board of Directors of the Wilderness Medical Society, suggests that using SCC would make death less humane, because it kills by suffocation (unpublished data). Postoperative muscle pain occurred in 60 percent of patients given SCC (Waters and Mapleson 1971, Verma et al. 1978).

Research conducted by Dr. E. Murl Bailey, a Professor of Toxicology, Experimental Surgery, and Pharmacology at Texas A&M University, has found that drugs such as SCC cause a very cruel death (M.R. James, Bowhunter April/May 1990). Dr. Bailey's research shows that massive doses of SCC cause very painful death, as consciousness continues long after respiration ceases. He concludes, therefore, that the drug can cause inhumane deaths and is dangerous for use in bow and arrow sport hunting.

Gutierrez et al. (1979) discuss the ethics of using SCC in a paper on hunting ethics, self-limitation, and the role of SCC in bowhunting. Although they strongly believe that the incidence of wounding deer should be decreased, they do not subscribe to the use of drug-treated arrows to accomplish this goal for the following reasons.
a. "The concept of bowhunting as a primitive sport placed emphasis on hunting skills rather than equipment sophistication. Adding drugs to modern archery tackle eliminates much of the primitive aspect of the sport—the aspect giving bowhunting its greatest appeal to many archers."

b. "The potential danger of increasing the incidence of fatal human accidents from drugged arrows must be considered carefully once the entire animal becomes a vital area, as shot selection and good arrow placement are less important. Under these conditions we feel there will be a tendency for less cautious target identification, thus increasing the potential for human error and accidents."

c. "Crippling rate (more accurately wounding rate) and crippling loss are not equivalent, but with drug-treated arrows more wounded deer would die."

d. "As Leopold (1943) warned and Kozicky (1977) reemphasized, the modern hunter is quickly becoming a gadgeteer. Some sportsmen have refused to become a part of this gadget-oriented hunting trend; they choose to use muzzle-loading firearms and archery equipment (although there certainly are gadgeteer archers). Their attempt at self-limitation is evidence of their efforts to increase the sport in sportsmanship. Wildlife managers should be encouraged by, and should encourage this attitude. The use of drug-treated arrows would likely encourage less competent archers to go afield unless more stringent requirements were set to qualify for an archery license."

The project has been designed to limit wounding through the specification of minimum performance requirements for archery equipment and firearms. It is expected that some wounding will nevertheless occur. The methods of take are not 100 percent lethal. Lethality is largely a function of hunter skill and accuracy.

Conclusion

The successful hunting of an animal results in the death of that individual. This is an adverse effect on the individual animal's welfare. Data and experience indicate that some animals killed as a result of the project would have died from other non-hunt-related causes. Nevertheless, in order to adequately analyze the effects that the project will have on an individual animal's welfare, the Department assumed that all animals killed by the project would have survived in its absence. Although some impacts may have a minor temporary effect on the environment, none of these impacts, either singly or in combination, will be significant.
CHAPTER 5. ANALYSIS OF ALTERNATIVES TO THE PROJECT

INTRODUCTION

In addition to the proposed project, the Department is providing the Commission with a range of five alternatives to the project which could feasibly attain the basic project objectives for pronghorn antelope management. They were selected to provide the Commission with a range of hunting alternatives to consider.

There is some public sentiment against hunting, and that segment of the public may consider other alternatives as viable means to achieve some management objectives. An alternative that does not include hunting is provided to the Commission for consideration. Consideration of such alternatives "foster informed decision-making and informed public participation" [CEQA Guidelines Section 15126(d)] towards meeting management objectives for pronghorn antelope. These alternatives are:

Alternative 1. No Change

The no change alternative would maintain quotas, season dates, boundaries and other special conditions for each hunt without change. It is unlikely that significant irreversible impacts would occur immediately or statewide as a result of selecting the no change alternative. However, this alternative is not recommended because it does not provide hunting opportunities that would maintain pronghorn antelope populations at desired levels, consistent with biological/environmental conditions. Retaining existing tag quotas for each zone is not responsive to biologically-based changes in the status of various herds. Management plans specify desired sex and age ratios which are attained/maintained in part by modifying tag quotas on an annual basis. In order to maintain hunting quality in accordance with management goals and objectives, it is periodically necessary to adjust quotas.

Alternative 2. Increased Harvest

This alternative would result in a significant increase in the pronghorn antelope harvest by issuing 50 percent more tags than the maximum in Table 1. Additionally, approximately 50 percent more PLM tags would be authorized under this alternative. Resulting harvest quotas would likely reduce and/or keep population numbers in the project area well below the objective level established by the Department.

Initially, hunter opportunity would significantly increase under this alternative because 50 percent more pronghorn antelope tags would be issued compared to the proposed project. This alternative would provide the most recreational (hunting) and economic benefits of any alternative in that it would provide the highest number of hunting opportunities, for the immediate future. Due to the short season, this alternative would not have a significant effect on non-consumptive recreational opportunities. However, it would reduce the quality of the hunt because of increased
hunter densities. Presently, hunters describe the pronghorn antelope hunt as a premier experience, partly due to the relatively low hunter densities. In addition, the significant increase in the harvest would likely cause an equally significant decrease in the number of tags in following years.

Pronghorn antelope population levels would be immediately reduced but might recover based on increased survival of young the following year(s) (Hess 1986). It is likely that habitat quality would improve somewhat as grazing and browsing is reduced. This alternative has the potential to improve the general health of the hunted pronghorn antelope populations in that it results in more rapid turnover of the population and increased fawn production and survival, as well as a younger age structure in the population. This alternative would not significantly affect the environment.

This alternative initially provides the highest level of pronghorn antelope hunting opportunity. But at current population levels, local, regional, and statewide pronghorn antelope populations may eventually experience significant negative impacts. Coordination with Oregon and Nevada biologists for the interstate portion of the northeastern California population has provided an agreement to manage pronghorn antelope for a minimum post-harvest buck-to-doe ratio of 20 to 100. However, based on simulation modeling, this alternative would result in a lower buck-to-doe ratio than any other state. A 50 percent increase in a buck-only harvest would eventually reduce buck-to-doe ratios in each hunt area well below 24 bucks to 100 does. A post-harvest ratio of 24 bucks per 100 does will maintain a healthy and viable population by assuring a sufficient number of bucks for breeding.

The increased harvest alternative would likely necessitate a dramatic reduction in the number of license tags in subsequent years to compensate for the significantly increased harvest expected under this alternative. The Department recommends the proposed project over this alternative so that pronghorn antelope can be managed consistently in a cautious and biologically conservative manner. Therefore, this alternative was judged less desirable by the Department than the proposed project.

**Alternative 3. Reduced Harvest (Bucks Only)**

Under the reduced harvest alternative, only 50 percent of the number of tags in the proposed action would be issued (see Table 1). These would be buck only tags. The total PLM tag allocation would also be reduced. This alternative would reduce hunter opportunity and provide only minimal herd reductions in areas where depredation and range overuse could be causing damage. Fawn-to-doe ratios, an indicator of population health, are negatively correlated with density of pronghorn antelope (Figure 11) (Pyrah 1987). As the population reaches or exceeds carrying capacity, further range degradation would be expected and, ultimately, a lowered carrying capacity for pronghorn antelope would result. Thereafter, lowered fawn recruitment and higher natural mortality would be expected to occur under this alternative.
Regular harvest of buck pronghorn antelope should result in a slight decrease in the buck-to-doe ratio similar to the proposed project. However, the reduced take of bucks under this alternative would not adjust the ratio as rapidly as the proposed action. The decrease in the number of tags issued for this alternative would likely result in an increase in the number of tags issued in subsequent years. A significant increase in pronghorn antelope numbers under this alternative would not necessarily be expected. The quantity/quality of pronghorn antelope forage would not improve under this alternative; however, implementing the lower harvest level would not cause significant adverse impacts to the environment.

Implementing this alternative would limit opportunity for junior hunts which typically involve either-sex tags. This alternative does not meet objectives of the pronghorn antelope management program to reduce property damage, maintain healthy, viable herds, and provide optimal hunting opportunity. Although there would be no significant effect on non-consumptive recreational opportunities, it would unnecessarily reduce hunting opportunities compared to the proposed action. The Department recommends the proposed project over this alternative.

Alternative 4. Increased Archery

The increased archery alternative would allocate a similar number of tags as the proposed project, with an increase in archery-only tags. Additional PLM license tags might also be authorized. The additional archery-only tags would significantly increase the archery-only tag allocation, although this alternative would not significantly increase the harvest of pronghorn antelope, because archery-only hunter success rate is approximately 30 percent. The increased harvest of buck pronghorn antelope would not be expected to adversely affect the population, particularly if the archery-only tags were distributed in zones with buck-to-doe ratios above the Department’s population goals described in the Northeastern California Pronghorn Antelope Management Plan.

This alternative would slightly increase hunter opportunity for archery-only hunters, with a concomitant reduction in opportunity for general season hunters. Under this alternative, fewer general season tags would be allocated to account for the higher archery harvest. In 1992, the Commission selected this alternative, increased the archery-only tag allocation by 10, and decreased the general season allocation by four. The percentage of archery-only applicants did not increase compared to applications for other pronghorn hunts in 1992. In 1993, the Department received the lowest percentage of archery-only license tag applications since initiation of the archery-only season. This alternative would provide an unfair advantage for archers by further increasing the probability of an archery-only applicant being drawn for an archery-only tag, and consequently decreasing the probability of a general season applicant being drawn for a general season tag.
Under the increased archery alternative, a few additional hunters will be in the field, but other recreational opportunities, such as photography, viewing, and nature study, would not be affected. The archery-only season is one of the first hunts to occur. Archery-only hunters are distributed throughout zones 1-6. Due to the limited number of hunters in the field at one time and the amount of public land which is open to the public for diverse recreational uses, the increased archery alternative would not cause a significant adverse effect on the environment.

The Department recommends the proposed project as a tool for the management of pronghorn antelope and to provide an equitable and diverse use of the resources. The Department does not recommend this alternative, because it would provide an unfair advantage for archery-only season applicants over general season applicants.

Alternative 5. No Hunting

The no hunting alternative would prohibit pronghorn antelope hunting and return pronghorn antelope management activities to levels similar to those practiced prior to 1942 (see Chapter 2). The Commission and the Department have broad authority for a wide range of pronghorn antelope management activities, including public hunting. This alternative would eliminate public hunting as an element of the Department's pronghorn antelope management program. Translocation efforts would continue as surplus pronghorn become available and suitable sites are identified. Overtime, suitable sites for releasing animals eventually would become increasingly scarce. The lack of suitable release sites would limit the activity of translocating pronghorn antelope to only a few new areas.

Pronghorn antelope are translocated only to suitable historic habitat. Such areas are rare in California today. Therefore, the rate of translocation projects is expected to remain slow. The fact that approximately 1,100 pronghorn antelope have been captured and relocated since 1947 to only 10 sites is an indicator of the difficulty in finding additional suitable sites. It is important to recognize that translocation efforts would not increase under the no-project alternative.

Under the no hunting alternative, the Department would continue to survey pronghorn antelope populations annually and update management plans as appropriate. In accordance with current statutes, pronghorn antelope would not be taken by depredation permits; consequently, the effectiveness of management actions to eliminate conflicts (i.e., property damage) and to maintain herd sizes at the identified objective levels would be limited. Ability to provide biologically sound public use of pronghorn antelope in the form of hunting would be eliminated. Overall efforts to gather data on pronghorn antelope would be less intensive in the future, because most are now done in conjunction with the hunting program.
From 1987 until 1993, the northeastern California pronghorn antelope population often exceeded the management plan's objective of 5,600-7,000 animals. Although the population currently appears to be below this objective, there is potential that this objective again will be exceeded during the next several years. The Department needs to address real and potential conflicts resulting from excessive pronghorn antelope population numbers, such as property damage and habitat degradation. Pronghorn antelope intensively use alfalfa fields in mid summer. The no hunting alternative would likely increase crop damage (Cole 1956) and fail to adequately resolve existing conflicts and management problems. Legislative actions might be initiated to provide for depredation permits.

Under existing regulations hunting is used as a mechanism to reduce private property depredation conflicts attributed to pronghorn antelope. Thus, some private landowners are assured that a cost effective means exists to reduce localized damage and dampen sharp population increases. The existence of a cost effective means of reducing conflicts may improve the tolerance of private landowners for pronghorn antelope and enhance the prospect for reintroduction to suitable portions of their historic range that currently are unoccupied. Without a means of resolving existing or potential conflicts, it is unlikely that large areas of privately owned land within suitable historic range will become available to pronghorn antelope in the future.

The no hunting alternative may affect the PLM Program, which enhances wildlife habitat to benefit numerous wildlife species while permitting the limited hunting of selected species to achieve specific management goals. Implementing this alternative could potentially terminate PLM agreements for habitat enhancement projects. Cancellation of these projects on private lands could affect several wildlife species, including threatened and endangered species (e.g., bald eagle, Swainson's hawk, and greater sandhill crane). Several projects have been implemented that will benefit these species. This alternative may dissuade private landowners from becoming involved in such programs to enhance private property for the benefit of wildlife if the State is not able to provide efficient and economical means to manage wildlife species.

Non hunting public uses of pronghorn antelope, including viewing, photography, and natural history study, would not be expected to change appreciably as a result of implementing the no-hunting alternative. There are no restrictions on these activities at present. Ecological and behavioral studies may still be proposed and would not be greatly affected. Under this alternative, population size would be expected to fluctuate more as a result of weather and periodic die-offs associated with overuse of the range. Analysis indicates there would not be a significant impact on the environment if the no project alternative is selected (Chapter 4). However, in the future the use of more intensive management alternatives would be considered to achieve the Department's management objectives in the project area.
The no hunting alternative forgoes a number of cost-effective (see "Impacts on Economics" in Chapter 4) and biologically sound (Loft 1989) management activities. This alternative also fails to meet the objective of providing public hunting opportunities as an element of pronghorn antelope management. Because of the above considerations, the Department recommends the proposed action over this alternative.
CHAPTER 6. CONSULTATION

An integral part of the Department's wildlife management program is consultation with other agencies and qualified professionals in the wildlife management field. To this end, Department staff involved with pronghorn antelope management are continually interacting with other agencies and professional biologists involved with pronghorn antelope management in other states. An interstate (California, Nevada, and Oregon) antelope meeting is conducted annually to discuss management activities of each state. A biennial pronghorn antelope workshop is attended to exchange information and ideas on management of pronghorn antelope with biologists from other western states and provinces.

In addition to maintaining close informal contact with personnel from other agencies involved in pronghorn antelope management, Department personnel also maintain formal contact with personnel representing wildlife management agencies, universities, and the private sector (both inside and outside of California) by attending professional wildlife management workshops, conferences, and seminars.

CEQA encourages public input. One of the primary purposes of the environmental document review process is to obtain public comment, as well as to inform the public and decision makers. It is the intent of the Department to encourage public participation in this environmental review process.

Prior to preparing this environmental document, the Department developed an NOP. In early December, the NOP was provided to the State Clearinghouse for distribution, as well as to land management agencies in California that have an interest, or play a key role, in pronghorn antelope management (including the USFWS, BLM, NPS, and USFS). This NOP was also provided to individuals and/or organizations which expressed an interest in pronghorn antelope management in the past. The NOP requested that any comments regarding the scope of the environmental document be submitted to the Department within 30 days of receipt of the NOP.
CHAPTER 7. RESPONSE TO COMMENTS REGARDING THE PROPOSED PROJECT

In accordance with CEQA, Public input and agency consultation were encouraged during the environmental review process. An NOP was provided to the State Clearinghouse, land management agencies having a key role in pronghorn antelope management, and all individuals and organizations which expressed an interest in pronghorn antelope management. The draft environmental document examined a variety of alternatives. The proposed project was recommended by the Department because it provided the public with the widest range of recreational opportunities related to wild pig populations, either state wide or locally. Every effort was made to avoid a biased analyses of issues. In general, the Department attempted to make the draft environmental document understandable to the public and to objectively summarize a large amount technical information. The Department reviewed and summarized a great deal for scientific literature, which is cited in the document.

No comments regarding the draft environmental document were received.


California Department of Fish and Game. Files on record. CDFG offices Redding and Sacramento.


Department of Water Resources data. Sacramento, California


Georen, B. 1990a. The mechanisms of the hunting arrow. Six page report, written for the Danish Bowhunters Association as part of their bowhunter education program.


Stone, T. Unpubl. Data. Department of Fish and Game, Redding, California.


Appendix 1 -
State and Federal Laws and Regulations
Relating to Pronghorn Antelope
SECTION 1. Section 206 of the Fish and Game Code is amended to read:

-206. (a) In addition to, or in conjunction with, other regular or special meetings the commission shall, at least every three years, hold meetings in the first 10 days of August, October, November, and December for the purpose of considering and adopting revisions to regulations relating to fish, amphibians, and reptiles. The commission shall alternate the locations of the August and December meetings between Los Angeles or Long Beach and Sacramento, and the October and November meetings between San Diego and Redding or Red Bluff.

(b) At the August meeting, the commission shall receive recommendations for regulations from its own members and staff, the department, other public agencies, and the public.

(c) At the October and November meetings, the commission shall devote time for open public discussion of proposed regulations presented at the August meeting. The commission shall participate in this discussion by reviewing and presenting its findings regarding each regulation proposed by the public and by responding to objections raised pertaining to its proposed regulations. After considering the public discussion, the commission shall announce, prior to adjournment of the November meeting, the regulations it intends to add, amend, or repeal relating to fish, amphibia, and reptiles.

(d) At the December meeting, the commission may choose to hear additional public discussion regarding the regulations it intends to adopt. At, or within 20 days after, the meeting, the commission shall add, amend, or repeal regulations relating to any recommendation received at the August meeting regarding fish, amphibia, and reptiles it deems necessary to preserve, properly utilize, and maintain each species or subspecies.

(e) Within 45 days after adoption, the department shall publish and distribute regulations adopted pursuant to this section.

SEC. 2. Section 207 of the Fish and Game Code is amended to read:

207. (a) In addition to, or in conjunction with, other regular or special meetings, the commission shall hold meetings in the first 10 days of the months of February, March, and April at least once every three years for the purpose of considering and adopting revisions to regulations relating to mammals. The commission shall alternate the location of the February meeting between Sacramento and Los Angeles or Long Beach. The commission shall alternate the location of the March meeting between San Diego and Redding or Red Bluff. The commission shall alternate the location of the April meeting between Sacramento and Los Angeles or Long Beach.

(b) At the February meeting, the commission shall receive recommendations for regulations from its own members and staff, the department, other public agencies, and the public.

(c) At the March meeting, the commission shall devote time for open public discussion of proposed regulations presented at the February meeting. The department shall participate in this discussion by reviewing and presenting its findings regarding each regulation proposed by the public and by responding to objections raised pertaining to its proposed regulations. After considering the public discussion, the commission shall announce, prior to adjournment of the March meeting, the regulations it intends to add, amend, or repeal relating to mammals.

(d) At, or within 20 days after, the April meeting, the commission may choose to hear additional public discussion regarding the regulations it intends to adopt. At, or within 20 days after, the meeting, the commission shall add, amend, or repeal regulations relating to any recommendations received at the February meeting regarding mammals that it deems necessary to preserve, properly utilize, and maintain each species or subspecies.

(e) Within 45 days after adoption, the department shall publish and distribute regulations adopted pursuant to this section.
SEC. 3. Section 208 of the Fish and Game Code is amended to read:

208. (a) In addition to, or in conjunction with, other regular or special meetings, the commission shall hold meetings in June and August at least once every three years for the purpose of considering and adopting revisions to regulations relating to resident game birds.

(b) At the June meeting, the commission shall receive recommendations for regulations from its own members and staff, the department, other public agencies, and the public.

(c) At, or within 20 days after, the August meeting, the commission shall devote time for open public discussion of proposed regulations presented at the June meeting. The department shall participate in this discussion by reviewing and presenting its findings regarding each regulation proposed by the public and by responding to objections raised pertaining to its proposed regulations. After considering the public discussion, the commission, at, or within 20 days after, the August meeting, shall add, amend, or repeal regulations relating to any recommendation received at the June meeting regarding resident game birds that it deems necessary to preserve, properly utilize, and maintain each species or subspecies.

(d) Within 45 days after adoption, the department shall publish and distribute regulations adopted pursuant to this section.
316. Pacific Halibut Regulations

The commission may prohibit the taking or possessing of Pacific halibut (Hippoglossus) in the same manner as the taking or possessing of Pacific halibut is prohibited by federal law or by rules or regulations adopted by the International Pacific Halibut Commission, notwithstanding any other provision of this code.

316.5. Federal Laws For Taking, etc., Salmon; Applicability [Added Stats 1996]

The commission may prohibit the taking or possessing of salmon in the same manner as the taking or possessing of salmon is prohibited by federal law or by rules or regulations adopted by the United States Secretary of Commerce, notwithstanding any other provision of this code.

(Amended by Statutes 1996 Chap. 870)

317. Game Taking Permits For Organizations Hunting For Servicemen or Veterans

Any organization conducting a special hunt for servicemen or veterans residing in or assigned to a United States veterans or armed services medical facility may apply to the commission for, and the commission may issue, under such terms and conditions as it may impose, a permit to take birds and mammals notwithstanding the provisions of Sections 3005 and 3006.

Article 2. Special Seasons

325. Surplus Game Hunting Season: Establishment of

Whenever after due investigation the commission finds that game mammals, other than deer, and fur-bearing mammals and resident game birds have increased in numbers in any areas, districts, or portions thereof other than a refuge or preserve established by statute, to such an extent that a surplus exists, or to such an extent that the mammals or birds are damaging public or private property, or are overgrazing their range, the commission may provide by regulation, for a special hunting season for the mammals and birds, additional to, or concurrent with any other open season specified by law, or provide for increased bag limits; or remove sex restrictions specified by law.

326. Public Hearing

Prior to the making of such a regulation the commission at an open meeting shall publicly announce the contents of the proposed regulation and fix a time and place at which a hearing on the proposed order shall be held. The time shall be not less than 21 days from the date of the meeting and the place shall be the county seat or each of the counties affected.

327. Hearing Notice

Notice of the hearing shall be published at least once, and at least 10 days prior to the hearing, in a newspaper of general circulation in each of the counties in which the hearing is to be held, or in such newspaper in that county or counties in which a newspaper in an adjoining county. The hearing shall be conducted by either (a) the commission, (b) a member or the commission designated by it, or (c) the director if requested so to do by the commission.

At least 10 days prior to the holding of any such hearing the commission shall notify each member of the board of supervisors, at his home address, or each county affected or the details of its proposed order affecting such county and the time and date of the hearing.

328. Mandatory Presence of Dept. Employees At Hearing; Modification of Proposals

Such employees of the department as may be necessary or are requested by any interested group of persons, shall be present at the hearing. A letter the hearing the commission may abandon the proposal or make a final regulation, with any modifications it deems appropriate, or without modification.

329. Contents of Regulations

The regulation may fix a license fee for special hunting and designate the number of special licenses to be issued, the time during which such hunting will be permitted, the number and sex or animals or birds that may be killed by each holder of a special license, and the conditions and regulations to govern such hunting.

330. Cooperative Hunting Areas

Cooperative hunting areas, as described in Sections 1570 to 1372, may be established in connection with any area opened to hunting under the foregoing provisions of this article.

331. Antelope; Limits and License Fees

(a) The commission may determine and fix the area or areas, the seasons and hours, the bag and possession limit, and the sex and total number of antelope (Antilocapra americana) that may be taken under regulations which the commission may adopt from time to time. Only a resident of the State of California possessing a valid hunting license, who has not received an antelope license tag under these provisions during a period of time specified by the commission, may obtain a license tag for antelope hunting.

(b) A license tag may be issued upon payment of a fee of fifty-five dollars ($55), as adjusted under Section 713. The fee shall be deposited in the Fish and Game Preservation Fund and shall be expended, in addition to money budgeted for salaries or persons in the department, for the expense of implementing this section.

(c) The commission shall direct the department to annually authorize not less than one antelope tag or more than 1 percent of the total number of tags available for the purpose of raising funds for programs and projects to benefit antelope. These tags may be sold at auction to residents or nonresidents of the State of California or by another method and are not subject to the fee limitation prescribed in subsection (b).

(Amended by Stats 1996 Chap. 870) A second version of Section 331, to become effective 1-1-1997, was repealed by Statutes 1996 Chap. 878.)

332. Elk: Limits and License Fees

(a) The commission may determine and fix the area or areas, the seasons and hours, the bag and possession limit, and the number or elk that may be taken under rules and regulations which the commission may adopt from time to time. The commission may authorize the taking or tule elk if the average of the department's tule elk population estimate exceeds 2000 animals, or if the Legislature determines, pursuant to the reports required by Section 3951, that suitable areas cannot be found in California to accommodate the population in a healthy condition.

(b) Only a resident of the State of California possessing a valid hunting license may obtain a license tag for the taking of elk.

(c) The department may issue an elk license tag upon payment of a fee of one hundred sixty-five dollars ($165), as adjusted under Section 713. The fee shall be deposited in the Fish and Game Preservation Fund and shall be expended, in addition to money budgeted for salaries of the department, for the expense of implementing this section and Section 3951.

(d) The commission shall annually direct the department to authorize not more than three elk hunting license tags for the purpose of raising funds for programs and projects to benefit elk. These license tags may be sold at auction to residents or nonresidents or the State of California or by another method and are not subject to the fee limitation prescribed in subsection (c).

(Amended by Statutes 1992 Chap. 3577)

Article 3. Migratory Birds

335. Regulations - Annual Promulgation

The commission may, annually, adopt regulations pertaining to migratory birds to conform with or to further restrict the rules and regulations prescribed pursuant to the Migratory Bird Treaty Act.

Regulations adopted under this section are not subject to Sections 113434, 134631, 113464, and 134688 of the Government Code.

Every regulation of the commission adopted pursuant to this article shall be filed with the Secretary of State, and shall become effective upon filing unless otherwise specified in the regulations.

(Amended by Statutes 1996 Chap. 878)
713. License Fees - How and When To Determine

(a) The changes in the Implicit Price Deflator for State and Local Government Purchases of Goods and Services, as published by the United States Department of Commerce, shall be used as the index to determine an annual rate of increase or decrease in the fees for licenses, stamps, permits, and tags issued by the department, except commercial fishing fees.

(b) The department shall determine the change in the Implicit Price Deflator for State and Local Government Purchases of Goods and Services, as published by the United States Department of Commerce, for the quarter ending March 31 of the current year compared to the quarter ending March 31 of the previous year. The relative amount of the change shall be multiplied by the current fee for each license, stamp, permit, or tag issued by the department. The product shall be rounded to the nearest twenty-five cents (SC 25), and the resulting amount shall be added to the fee for the current year. The resulting amount shall be the fee for the license year beginning on or after January 1 or the next succeeding calendar year for the license, stamp, permit, or tag which is adjusted under this section.

(c) Notwithstanding any other provision of law, the department may recalculate the current fees charged for each license, stamp, permit, or tag issued by the department, except commercial fishing fees, to determine that all appropriate indexing has been included in the current fees. This section shall apply to all licenses, stamps, permits, or tags, except commercial fishing fees, that have not been increased each year since the base year of the 1985-86 fiscal year.

(d) The calculations provided for in this section shall be reported to the Legislature with the Governor's Budget Bill.

(e) The Legislature finds that all revenues generated by fees for licenses, stamps, permits, and tags, computed under this section and used for the purposes for which they were imposed, are not subject to Article XIII B of the California Constitution.

(f) The department shall, at least every five years, analyze all fees for permits, licenses, stamps, and tags issued by it to ensure the appropriate fee amount is charged. Where appropriate, the department shall recommend to the Legislature or the commission that fees established by the commission or the Legislature be adjusted to ensure that those fees are appropriate.

(Amended by Statutes 1991 Chapt. 732)

714. Lifetime Sportsman's Licenses; Fees, Age Requirements, Etc.

(a) In addition to Section 3031, 3031.2, 7149, or 71492 and notwithstanding Section 3037, the department shall issue lifetime sportsman's licenses pursuant to this section. A lifetime sportsman's license authorizes the taking of birds, mammals, fish, reptiles, or amphibians anywhere in this state in accordance with requirements otherwise established by law.

(b) A lifetime sportsman's license does not include any special tags, stamps, or other entitlements.

(1) To a person 62 years of age or over upon payment of a fee of six hundred dollars ($600) in 1998.

(2) To a person 40 years of age or over and less than 62 years of age upon payment of a fee of eight hundred ninety dollars ($890) in 1998.

(3) To a person 10 years of age or over and less than 40 years of age upon payment of a fee of nine hundred ninety dollars ($990) in 1998.

(c) Nothing in this section requires a person under the age of 16 to obtain a license to take fish, reptiles, or amphibians other than profit or to obtain a license to take birds or mammals except as required by law.

(d) Nothing in this section exempts as applicant for a license from meeting other qualifications or requirements otherwise established by law for the privilege of sport hunting or sport fishing.

(e) Upon payment of a fee of three hundred ten dollars ($310), a person holding a lifetime hunting license or lifetime sportsman's license shall be issued annually one deer tag pursuant to subdivision (a) of Section 4332 and five wild pig tags issued pursuant to Section 4654.

(f) Upon payment of one hundred two hundred dollars ($200), a person holding a lifetime hunting license or lifetime sportsman's license shall be entitled annually to the privileges afforded to a person holding a state duck stamp or validation issued pursuant to Section 3700 or 3700.1 and an upland game bird stamp or validation issued pursuant to Section 3822 or 3822.1.

(Added by Statutes 1990 Chapt. 1706)


The department shall report on or before January 30, 1996, to the Senate Committee on Natural Resources and Wildlife and the Assembly Committee on Water, Parks and Wildlife on the feasibility of the department entering into the National Wildlife Violator Compact. The report shall include an analysis of the steps needed for implementation and the fiscal impact of participation in the National Wildlife Violator Compact. The report shall not enter into the National Wildlife Violator Compact without further authorization by statute.

(Added by Statutes 1996 Chapt. 398)

CHAPTER 1.5. WILDLIFE VIOLATOR COMPACT


716. Wildlife Violator Compact

The Wildlife Violator Compact is hereby enacted into law and entered into with all other participating states.

(Added by Statutes 2001 Chapt. 398)

716.1. Statement of Policy

It is the policy of this state in entering into the compact to do all of the following:

(a) Promote compliance with the statutes, ordinances, and administrative rules and regulations relating to the management of wildlife resources in this state.

(b) Recognize the suspension of wildlife license privileges of any person whose license privileges have been suspended by a participating state and treat that suspension as if it had occurred in the licensee's home state if the violation that resulted in the suspension could have been the basis for suspension in the home state.

(c) Allow a violator, except as provided in subdivision (b) of Section 716.4, to accept a wildlife citation and, without delay or detention, proceed on his or her way whether or not the violator is a resident of the state.

(d) Report to the appropriate participating states, as provided in the compact manual, any conviction recorded against any person whose home state was not the issuing state.

(e) Extend cooperation to its fullest extent among the participating states for enforcing compliance with the terms of a wildlife citation issued in one participating state to a resident of another participating state.

(f) Maximize effective use of law enforcement personnel and information.

(g) Assist court systems in the efficient disposition of wildlife violations.

(Added by Statutes 2001 Chapt. 398)
§1792.5.  Reimbursement For Expenses
The department shall be reimbursed for those expenses of the department identified in Section 1792 accord­
ing to a schedule contained in an agreement with the person establishing a wetland mitigation bank.
The agreement shall be approved by all parties prior to the commencement or planning activities.

(Added by Statutes 1993 Chap. 1154)

§1793.  Compensation by Permittee
A permittee shall provide compensation pursuant to Section 404 of the federal Clean Water Act (3
USC. Sec. 1344 et seq.). The department shall classify the wetlands that the permittee will remove accord­ing to wetland type, consistent with Article 4 (commencing with Section 1790).

(Added by Statutes 1993 Chap. 1154)

§1794.  Compensation Conditions
Compensation pursuant to Section 1793 is subject to the conditions that the operator establish the trust or bond required by subparagraph (b) of paragraph (3) of subdivision (h) of Section 1786 and, in addi­tion, is subject to the following conditions:
(a) The full payment shall be used to purchase credits in the mitigation bank site.
(b) The payment shall provide for purchase of bank site wetland acreage required by Section 1793 that has the same hydrologic, vegetative, and other characteristics as the system for which it will serve as mitig­ation.
(c) A permittee shall not participate in a wetlands mitigation bank if a net loss of wetland habitat values or acreage occurs.
(Added by Statutes 1993 Chap. 1154)

§1795.  Obligations of Permittee
After payment to the operator pursuant to this article, the permittee has no further obligations with re­spect to the operation of the bank site to which payment was made, unless the permittee has an equity in­volvement in the bank.
(Added by Statutes 1993 Chap. 1154)

§1796.  Bank Sites; Qualification Time Limit, Reports
No bank site shall be qualified under Section 1785 on or after January 1,2010.
(Added by Statutes 2002 Chap. 745)

CHAPTER 8.  CONSERVATION OF WILDLIFE RESOURCES
Article 1.  Definitions
1800.  Wildlife
As used in this chapter "wildlife" means birds, mammals, and reptiles not raised in captivity.

Article 2.  Policy
1801.  Policies and Objectives
It is hereby declared to be the policy of the state to encourage the preservation, conservation, and mainte­nance of wildlife resources under the jurisdiction and influence of the state. This policy shall include the following objectives:
(a) To maintain sufficient populations of all species of wildlife and the habitat necessary to achieve the objectives stated in subdivisions (b), (c), and (d).
(b) To provide for the beneficial use and enjoyment of wildlife by all citizens of the state.
(c) To perpetuate all species of wildlife for their intrinsic and ecological values, as well as for their direct benefits to all persons.
(d) To provide for aesthetic, educational, and nonappropriative uses of the various wildlife species.
(e) To maintain diversified recreational uses of wildlife, including the sport of hunting, as proper use of certain designated species or wildlife, subject to regulations consistent with the maintenance of healthy, viable wildlife resources, the public safety, and a quality outdoor experience.
(f) To provide for economic contributions to local citizens of the state, through the recognition that wild­life is a renewable resource of the land by which economic return can accrue to the citizens of the state, indi­vidually and collectively, through regulated management. Such management shall be consistent with the maintenance of healthy and thriving wildlife resources and the public ownership status of the wildlife re­sources.
(g) To alleviate economic losses or public health or safety problems caused by wildlife to the people of the state either individually or collectively. Such resolution shall be in a manner designed to bring the problem within tolerable limits consistent with economic and public health considerations and the objectives stated in subdivisions (a), (b), and (c).
(h) It is not intended that this policy shall provide any power to regulate natural resources or commercial or other activities connected therewith, except as specifically provided by the Legislature.
(Added by Statutes 1992 Chap. 275)

1802.  Jurisdiction of Department
The department has jurisdiction over the conservation, protection, and management of fish, wildlife, na­tive plants, and habitat necessary for biologically sustainable populations of those species. The depart­ment, as trustee for fish and wildlife resources, shall consult with lead and responsible agencies and shall provide, as available, the requisite biological expertise to review and comment upon environmental documents and impacts arising from project activities, as those terms are used in the California Environmental Protection Act (Division 13 (commencing with Section 21000) or the Public Resources Code).
(Added by Statutes 1996 Chap. 786)

CHAPTER 9.  WETLANDS MITIGATION BANKING
1850.  Database of Wetlands Mitigation Banks Required
On or before January 1,2002, the department shall establish an updated data base of all existing and oper­ating wetlands mitigation banks that sell credits to the public in California. To the extent feasible, the depart­ment shall use all existing information in compiling this data base and shall utilize the CERES Environmental Data Catalog to make this information available to the public. The department shall up­date this data base on an annual basis and shall include all relevant information required by Section 1851.
(Added by Statutes 2000 Chap. 950)

1851.  Biennial Review
On or before January 1,2002, and biennially thereafter, the department shall review the data base and the data catalog described in Section 1850, and shall provide a report to the Legislature with a description and list of each existing wetlands mitigation bank site in operation as of January 1,2001, and each miti­gation bank site approved thereafter. The report shall include, but not be limited to, all of the following information:
(a) The name, address, and telephone number of the person or agency who created the wetlands mitigation bank site.
(b) The name, address, and telephone number of the wetlands mitigation bank operator and the address or other appropriate physical description of the location of the wetlands mitigation bank site.
(c) The date the wetlands mitigation bank site was created.
(d) A description of the wetlands mitigation bank site's service area.
§ 3246. FISH AND GAME CODE

3246. License Revocation

Any license issued under this article may be revoked by the commission at one of its regular meetings, or by a court of competent jurisdiction, upon the licensee’s conviction of a violation of this code, and no new license may be issued to the licensee during the same license year.

(Amended by Statutes 1986 Chaps. 1244)

Article 3. Licensed Domesticated Game Bird Hunting Clubs

(Amended by Statutes 1994 Chaps. 549)

3270. Pheasant Club License Conditions

(a) In order to provide additional hunting by stocking domestically propagated game birds, and to permit the taking of game birds under conditions that will not conflict with the public interest, any person who owns or controls the hunting rights on a tract of land may apply to the department for a game bird club license authorizing the taking of game birds upon that land in accordance with the regulations of the commission for the administration, including the implementation and enforcement, of this section.

(b) This section shall become operative on July 1, 1995.

(Added by Statutes 1994 Chaps. 549)

Article 4. Licensed Domesticated Migratory Game Bird Shooting Areas

3300. Raise and Release Domesticated Migratory Game Birds; License Required

It is unlawful for any person to engage in the raising and releasing, or the releasing, of domesticated migratory game birds for shooting by persons who pay for that privilege, unless the person has a revocable nontransferable license issued by the department. The licenses may be issued annually by the department and shall be valid from July 1 through the following June 30, upon payment of an annual fee of eighty dollars ($80), as adjusted under Section 713.

Any bird of a species included in the definition of migratory game birds, as defined in Section 3500, which has been held live in captivity is a “domesticated migratory game bird” for purposes of this section, except such a bird that has been released from captivity and any control before reaching six weeks of age.

(Amended by Statutes 1996 Chaps. 1366)

3301. Posting of Boundaries of Licensed Area

The application for a license shall show the size and location of the area to be licensed. If an application is approved and a license is issued, the licensee shall post the boundaries of the licensed area with signs, at intervals of not more than 500 feet, which shall indicate that the area is licensed for the shooting of domesticated migratory game birds. Such signs shall be of a size not less than 12 by 18 inches.

3302. Additional License Regulations; Revocation

The commission may prescribe additional regulations deemed necessary for the releasing and shooting of domesticated migratory game birds and shall set the season and areas where such birds may be taken. If the licensee violates any of the provisions of this article or any regulations made pursuant thereto, the commission may cancel or revoke the license provided notice has been given to the licensee and he has been given an opportunity to be heard by the commission.

3303. Proper and Adequate Care at Game Birds Required

Where domesticated migratory game birds are reared or held for release by the licensee, the licensee shall provide proper and adequate care for the birds and shall rear and hold them only under sanitary conditions. Conditions for proper care and raising shall be prescribed by the commission. The licensee shall provide for the inspection of birds and facilities upon the request of the department.

3304. Minimum Number of Birds Required Per License Period - 500

The licensee shall rear or use a minimum of 500 birds during the annual license period.

3305. Condition and Age Requirement of Game Birds at Time of Release

All domesticated migratory game birds at time of release for shooting shall be at least 14 weeks of age, capable of normal sustained flight, or which are diseased, or show evidence of malnutrition or injury, shall not be released.

3306. Shooting Requirements

Shooting shall be confined to blinds, except for shooting necessary to recover a downed and injured bird, and not more than three shooters shall occupy or use each blind. Such blinds shall be constructed to prevent the shooting of domestic migratory game birds over water and to insure minimum safety to occupants of adjoining blinds.

The blinds shall be so situated so that the occupants of the blinds cannot see the release site. The licensee shall not permit any shooting within 500 feet of a point where the birds are released, nor shall any birds be taken within such distance from the point of release.

3307. Killed or Injured Bird Retrieval; Retrieval Dog Availability

All birds killed or injured by shooters shall be retrieved without delay, and all injured birds shall be humanely dispatched. The licensee shall not permit injured birds to remain on a pond or feeding area, nor shall he knowingly permit such birds to be used in any subsequent release.

In order to prevent the loss of any dead or injured birds, the licensee shall provide the use of a retrieving dog, without cost, to all shooters, except that shooters may provide their own retrieving dogs. The licensee shall not permit the shooting of any birds unless a retrieving dog is immediately available for use by all shooters.

3308. Inspection Fee - Maximum

The license shall pay the department an inspection fee not to exceed five cents ($0.05) for each domesticated migratory game bird raised or used on a licensed area to receive proper adherence to these regulations.

3309. Seal Attachment to Dead Birds

If killed, domesticated migratory game bird shall be removed from the premises of a licensed area until there is securely attached to the carcass a seal, and such seal shall remain attached to the carcass until it is finally prepared for consumption. Each such seal shall be supplied by the department at a fee set by the commission not to exceed five cents ($0.05).

3310. Valid Hunting License Required

It shall be unlawful for any person to shoot domesticated migratory game birds on a licensed area without having a valid hunting license as provided by Section 3031.

3311. Licensee - Must Comply with Federal Laws and Regulations

The licensee shall comply with all applicable federal laws or regulations relating to the releasing and shooting of domesticated migratory game birds.

Article 5. Enhancement and Management of Fish and Wildlife and Their Habitat on Private Lands

(Amended by Statutes 1992 Chap. 315)

3400. State Policy - Improvement of Wildlife Habitat on Private Land

It is the policy of the state actively to ensure the improvement of wildlife habitat on private land in order to encourage the propagation, utilization, and conservation of fish and wildlife resources on those lands now and for the future in cooperation with private landowners. The commission and the department may develop a private wildlife habitat enhancement and management program for the implementation of this article.

(Amended by Statutes 1992 Chap. 818)

3401. Licenses - Wildlife Enhancement and Management Areas; Rule Hunting

(a) The commission may authorize the department to issue revocable, nontransferable licenses for the operation of wildlife habitat enhancement and management areas on any private lands. It determines are suitable for habitat enhancement, management, utilization, propagation, and conservation of fish and wildlife resources of those lands. Any private lands affected by a habitat enhancement and management
plan licensed pursuant to this article shall not be available for use by the general public without the consent of the landholders. No public access roads shall be closed to the public under this article as a result of licensing a wildlife habitat enhancement and management area or implementing the wildlife habitat enhancement and management plan.

(b) The commission shall authorize hunting during the rut only in a wildlife habitat enhanced and management area when that hunting is consistent with the management plans prepared for that area or herd and does not result in an overall negative effect on the deer herd population in that area.

(Amended by Sessa's 1991 Chap. 635)

3402. License Requirements

(a) A license for a wildlife habitat enhancement and management area may be issued to any landholder or combination of landholders upon approval by the commission of an application submitted by the landholder. As used in this article, "landholder" means any person who owns, leases, or has a possessory interest in land.

(b) Each site application shall be accompanied by a nonrefundable fee in an amount established by the commission which, in conjunction with fees collected pursuant to Section 3407, is calculated to meet the department's actual costs in administering all aspects of the habitat enhancement and management program. The application shall be accompanied by a wildlife habitat enhancement and management plan and such other information about the proposed wildlife habitat enhancement and management area as may be required by the commission.

(c) An application for a license may be submitted by any number of landholders if all parcels to be included in the wildlife habitat enhancement and management area are contiguous and, in combination, are of a size suitable for the management of the species included in the wildlife habitat enhancement and management area. The designated landholder shall designate one or more additional landholders to assist in the administration of the commission and the department. The designated landholder shall be responsible for the operation of the wildlife habitat enhancement and management area.

(d) A landholder who does not own the fee to the land may apply for a license pursuant to this article only if the owner signs the application.

(Amended by Statutes 1992 Chap. 818)

3403. Posting of Area Boundaries Required

The commission shall require the landowner of a wildlife habitat enhancement and management area to post all or part of the boundaries with public land. The commission may require the owner of a wildlife habitat enhancement and management area to post all or part of its boundaries with private land.

(Amended by Statutes 1992 Chap. 818)

3404. Commission May Adopt Regulations

(a) The commission may adopt regulations necessary for the administration of this article.

(b) After notice and a hearing, the commission may revoke the license for any violation of any provision of this code or any regulations adopted pursuant thereto or for any violation of the terms of the license.

(Amended by Statutes 1992 Chap. 818)

3406. License Term; Authorizations; Regulations; Restrictions

(a) Upon approval of the wildlife habitat enhancement and management plan, the department shall issue a license, which shall be valid for five calendar years, authorizing the taking of those species of fish, game birds, and game mammals designated in the Wildlife Habitat Enhancement and Management Plan, pursuant to the plan and regulations of the commission for the operation of the wildlife habitat enhancement and management area. Regulations adopted pursuant to this section may supersede any provision of this code designated by number in the regulation, but shall do so only to the extent specifically provided in the regulation.

(b) During the first year of operation of a wildlife habitat enhancement and management area under a wildlife habitat enhancement and management plan and thereafter, until the operator demonstrates habitat enhancement in an area acceptable to the department, no person shall take, and the plan shall not authorize the taking, of deer except during the general open season and consistent with the bag and possession limits for the fish and game district or the zone in which the wildlife habitat enhancement and management area is located.

(c) The activities conducted pursuant to each wildlife habitat enhancement and management plan shall be reviewed annually by the department and reviewed by the commission at a public hearing. Each licensee shall annually submit information to the department about past activities and the activities intended to be conducted in the succeeding year. Any change to the wildlife habitat enhancement and management plan or the regulations applicable to the wildlife habitat enhancement and management area shall be proposed to the commission by the department or the licensee at the review hearing.

(Amended by Statutes 1992 Chap. 818)

3407. Mark with Tag or Seal Fish, Birds, or Mammals Taken

The department may require that any fish, bird, or mammal taken in a wildlife habitat enhancement and management area licensed pursuant to this article be marked for identification with a distinctive tag or seal issued by the department prior to being removed from the area. A deer tag shall be countersigned by a person who is authorized to countersign deer tags pursuant to Section 372 of Title 14 of the California Code of Regulations. Any fish, bird, or mammal so identified may be possessed and transported at any time during the period for which the tag or seal is valid. The fees for tags and seals shall be established by the commission in amounts which, in conjunction with fees collected pursuant to Section 3402, are calculated to meet the actual costs incurred by the department in administering all aspects of the habitat enhancement and management program.

(Amended by Statutes 1992 Chap. 818)

3408. Exemptions from Fees or License; Exceptions

Any landholder who has paid the fee required by this article, has a valid license issued pursuant to this article, and who is conducting activities pursuant to an approved wildlife habitat enhancement and management plan that could be licensed or permitted pursuant to another provision of this code shall be exempt from any requirement to obtain that other license or permit or to pay any other fee. This section shall not, however, excuse the landholder from any requirement pertaining to hunting and sport fishing licenses and stamps.

(Amended by Statutes 1992 Chap. 818)

3409. Annual Report by Department

The department shall report every three years on the wildlife habitat enhancement and management program conducted pursuant to this article. The report shall include a listing of landholders participating in the wildlife habitat enhancement and management program, the wildlife habitat enhancement and management activities undertaken, the wildlife species managed, and harvest data. The report shall be submitted to the Speaker of the Assembly, the Chairperson of the Senate Committee on Rules, and the chairs of the policy committees in both houses that have jurisdiction over the subject of this article. The report shall also be made available to the public upon request.

3450. Policy of State

It is the policy of the state to actively encourage the biologically sound management of fish and other wildlife resources on lands administered by the United States Department of Defense. The department may develop a program to implement this article in cooperation with the military services.

(Amended by Statutes 1986 Chap. 591)

3451. Coordination and Cooperation with U.S. Military

The department may coordinate and cooperate with all branches of the United States military service. Department of Defense, for the purpose of developing fish and wildlife management plans and programs on military installations. The plans and programs shall be designed to provide biologically optimum levels of fish and wildlife resource management and use compatible with the primary military use of those lands.
3801.6. Possess Carcass, etc. of Nongame Bird; Exceptions and Disposition

(a) Except as otherwise provided in this code or regulations made pursuant thereto, it is unlawful to possess the carcass, skin, or parts of any nongame bird. The carcass, skin, or parts of any nongame bird possessed by any person in violation of any of the provisions of this code shall be seized by the department and delivered to a scientific or educational institution.

(b) The department may enter into cooperative contracts with the United States Fish and Wildlife Service in the Department of the Interior in relation to the control or eradication of predatory birds, and for that purpose may expend any money made available to the department for expenditure for the control or eradication of predatory birds.

(c) Take Birds Which Prey Upon Birds, Mammals, or Fish

The department may take any bird which, in its opinion, is unduly preying upon any bird, mammal, or fish.

(d) Licenses to Feed Migratory Game Birds to Prevent Crop Depredation

In order to aid in relieving widespread waterfowl depredation of agricultural crops, the department may issue licenses under regulations which the commission may prescribe to permit the feeding of migratory game birds. The commission may prescribe an annual fee for the license.

(Amended by Statutes 1958 Chap. 183)

CHAPTER 4. CALIFORNIA CONDOR

3850. Preservation Project Objectives

The department may carry out a California condor preservation project which has the following objectives:

(a) Habitat protection, consistent with the department's existing legal authority.

(b) Field research, including mortality studies.

(c) Captive breeding program.

(d) Condor release program.

(Added by Statutes 1938 Chap. 83)

3851. Plan Development

The department, jointly with the federal-state condor recovery team established pursuant to the federal Endangered Species Act shall develop a plan to respond to the objectives in Section 3850. Based on the plan, the department shall develop specific activities, studies, and programs to be administered by the department in the areas of habitat protection and field research. The department may use all or some of these activities, studies, and programs.

(Amended by Statutes 1988 Chap. 83)

3852. Breeding Programs at Zoos - Funds

The department shall provide funds to the Zoological Society of San Diego and to the Los Angeles Zoo for a condor breeding program on the grounds of each zoo.

(Amended by Statutes 1988 Chap. 83)
3960. Allow Dogs to Pursue Big Game Mammals: Conditions; Disposition of Dog

It is unlawful to permit or allow any dog to pursue any big game mammal during the closed season on such mammal, to pursue any fully protected, rare, or endangered mammal at any time, or to pursue any mammals in a game refuge or ecological reserve if hunting within such refuge or ecological reserve is unlawful.

Employees of the department may capture any dog not under the reasonable control of its owner or handler, when such uncontrolled dog is pursuing, in violation of this section, any big game, fully protected, rare, or endangered mammal.

Employees of the department may capture or dispatch any dog inflicting injury or immediately threatening to inflict injury to any big game mammal during the closed season on such mammal, and they may capture or dispatch any dog inflicting injury or immediately threatening to inflict injury on any fully protected, rare, or endangered mammal at any time.

Employees of the department may capture or dispatch any dog inflicting injury or immediately threatening to inflict injury to any mammal in a game refuge or ecological reserve if hunting within such refuge or ecological reserve is unlawful.

No criminal or civil liability shall accrue to any department employee as a result or enforcement of this section. The owner of a dog shall be notified within 72 hours after capture or dispatch.

3961. Property Owner Holding Grazing Permit May Seize or Dispatch Dogs

Whenever an employee of the department is not present to carry out the provisions of Section 3960 with respect to any dog inflicting injury or immediately threatening to inflict injury to any deer, elk, or pronghorn antelope during the closed season for these mammals, any property owner, lessee, person holding a permit for the purpose of grazing livestock, or bis or her employee, may seize or dispatch the dog if it is found on his or her land or premises without the permission of the owner who is in immediate possession of the land. If the dog has on it any ready visible identification tag or license tag as prescribed by Section 39851 of the Food and Agricultural Code, and the dog is found in the act of immediately threatening to inflict injury to any person, the dog may only be dispatched under this section if the dog has, and the owner has been notified that the dog has, previously threatened any of these species.

No action, civil or criminal, shall be maintained for a dog lawfully seized or dispatched pursuant to this article.

The owner of a dog shall be notified within 72 hours of the seizure or dispatching of that dog under this section if it had the identification tag or license tag which is required pursuant to Section 39851 of the Food and Agricultural Code.
Article 2. Fur Dealer License

4030. License Requirements for Fur Dealer

Every person engaging in, curving on, or conducting wholly or in part the business of buying, selling, trading or dealing in raw furs of fur-bearing mammals or nongame mammals is a fur dealer and shall procure a fur dealer license. No fur dealer license shall be required of a licensed trapper selling raw furs which he has lawfully taken, or a domesticated game breeder selling raw furs of animals which he has raised.

4031. License Fee

A revocable fur dealer license shall be issued to any person upon payment of a base fee of seventy dollars ($70), as adjusted under Section 713.

(Amended by Statutes 1986 Chap. 1368)

4032. License Requirements for Fur Agent

Any person who is employed by a licensed fur dealer to engage in the business of buying, selling, trading, or dealing in raw furs only on behalf of the fur dealer and not on his own behalf is a fur agent and shall procure a fur agent license.

4033. Fur Agent Revocable License

A revocable fur agent license shall be issued to any person who is employed by a licensed fur dealer upon payment of a base fee of thirty-five dollars ($35), as adjusted under Section 713.

(Amended by Statutes 1986 Chap. 1368)

4034. Authority and Term of Fur Dealer License

A fur dealer license authorizes the person in whom it is issued to buy, sell, barter, exchange, or possess raw furs or parts thereof of fur-bearing mammals and nongame mammals for a term of one year from July 1st, or if issued after the beginning of such term, for the remainder thereof.

4035. Display of Licenses

A fur dealer or fur agent license shall be shown upon request to any person authorized to enforce the provisions of this code.

4036. Raw Fur Purchase Restrictions

It shall be unlawful for any fur dealer to purchase the raw fur of any fur-bearing mammal or nongame mammal from any person who does not hold a valid trapping license, fur dealer license, or fur agent license.

4037. Raw Fur Transfer Record Requirements

Every fur dealer licensed pursuant to this article shall maintain a true and legible record of any transfer of raw furs to show:

(a) The license number, name, and address of the seller.
(b) The signature, name, and license number, if applicable, of the buyer.
(c) The number and species of raw furs transferred, by county of take.
(d) The price paid or terms of exchange.
(e) The date of transfer.
(f) Such other information as the department may require.

4038. Records - Available for Inspection at All Times

The record of sale, exchange, barter, or gift shall be available for inspection at any time by the department.

4039. Annual Report by Dealers of Fur Transfers

Each licensed fur dealer shall submit an annual report to the department on the sale, exchange, barter, or gift of raw furs, on forms furnished by the department. No license shall be renewed until such a report is received.
4041. Confidentiality of Receipts, Records, and Reports
The receipts, records, and reports required by this article and the information contained therein, shall be confidential, and the records shall not be public records. Any information which is published shall be published in such a manner as to preserve confidentiality of the persons involved.

4042. Regulation of Raw Fur Business by Commission
The commission may regulate the business of buying, selling, trading, or dealing in raw furs, or parts thereof, of all fur-bearing mammals or nongame mammals under a fur dealer license.

4043. License Revocation
Any license issued under this chapter may be revoked by the commission at any time or in accordance with regulations adopted by the commission.

CHAPTER 3. NONGAME MAMMALS AND DEPREDATORS

Article 1. Nongame Mammals

4150. Definition of Nongame Mammals; Take or Possess
All mammals occurring naturally in California which are not game mammals, fully protected mammals, or fur-bearing mammals, are nongame mammals. Nongame mammals or parts thereof may not be taken or possessed except as provided in this code or in accordance with regulations adopted by the commission.

4151. House Cats Found Within Limits of Refuge
Any house cat (Felis domesticus) found within the limits of any fish and game refuge is a nongame mammal, unless it is in the residence or its owner or upon the grounds of the owner adjacent to such residence.

4152. Taking of Nongame Mammals Found Injuring Crops or Property
"Except as provided in Section 4001 nongame mammals and black-tailed jackrabbits, muskrats, and red fox squirrels "Unlawful to be injured growing crops or other property may be taken at any time or in any manner in accordance with this code or in accordance with regulations adopted by the commission.

4153. Control of Harmful Nongame Mammals
The department may enter into cooperative agreements with any agency of the state or the United States for the purpose of controlling harmful nongame mammals. The department may take any mammal which, in its opinion, is unduly preying upon any bird, mammal, or fish.

4154. Contracts and Expenditures for Control of Harmful Nongame Mammals
The department may enter into cooperative contracts with the United States Fish and Wildlife Service in the Department of the Interior in relation to the control of nongame mammals and for that purpose may expend any money made available to the department for expenditure for control or eradication of nongame mammals.

FISH AND GAME CODE

§4181.

4180. Take Fur-bearing Mammals; Conditions; Use of Leghold Steel-jawed Traps; Removal of Animals in the Trap
"Except as provided for in Section 4005, fur-bearing mammals ""That are injured property may be taken at any time and in any manner in accordance with this code, except that if leghold steel-jawed traps are used to take those mammals, the traps and the use thereof shall be in accordance with subdivisions (a), (b), and (c) of Section 4004. Raw furs, as defined in Section 4005, that are taken under this section shall not be sold.

Traps used pursuant to this section shall be inspected and all animals in the trap shall be removed at least once daily. The inspection and removal shall be done by the person who sets the trap or the owner of the land where the trap is set or an agent of either.

4181. Kill Elk, Bear, Beaver, Wild Pig, or Gray Squirrels Damaging Property; Permit Required
(a) Except as provided in Section 4181.1, any owner or tenant of land or property that is being damaged or destroyed or is in danger of being damaged or destroyed by elk, bear, beaver, wild pig, or gray squirrels, may apply to the department for a permit to kill the mammals. The department, upon satisfactory evidence of the damage or destruction, actual or threatened, shall issue a revocable permit for the taking and destruction of the mammals under regulations adopted by the commission. The permit shall include a statement of the penalties that may be imposed for a violation of the permit conditions. Mammals so taken shall not be sold or shipped from the premises on which they are taken except under instructions from the department. No iron-jawed or steel-jawed or any type of metal-jawed trap shall be used to take any bear pursuant to this section. No poison of any type may be used to take any gray squirrels pursuant to this section. The department shall designate the type of trap to be used to insure the humane method of trapping gray squirrels. The department may require trapped squirrels to be released in parks or other nonagricultural areas. It shall be unlawful for any person to violate the terms of any permit issued under this section.

(b) The permit issued for taking bears pursuant to subdivision (a) shall contain the following data:
(1) Why the issuance of the permit was necessary.
(2) What efforts were made to solve the problem without killing the bears.
(3) What corrective actions should be implemented to prevent recurrences.
(c) With respect to wild pigs, the department shall provide an applicant for a depredation permit to take wild pigs or a person who reports taking wild pigs pursuant to subdivision (b) of Section 4181.1 with written information that sets forth available options for wild pig control, including, but not limited to, depredation permits, allowing periodic access to licensed hunters, and holding special hunts authorized pursuant to Section 4188. The department may maintain and make available to these persons lists of licensed farmers interested in wild pig hunting and lists of nonprofit organizations that are available to take possession of depredating wild pig carcasses.

4181.1. Take Bear or Wild Pig in Area Injuring Livestock; Reporting Requirement, etc.
(a) Any bear that is encountered while in the act of inflicting injury to, molesting, or killing livestock may be taken immediately by the owner of the livestock or the owner's employee if the taking is reported no later than the next working day to the department and the carcass is made available to the department.
(b) Notwithstanding Section 4652, any wild pig that is encountered while in the act of inflicting injury to, molesting, pursuing, worrying, or killing livestock or damaging or destroying, or threatening to imme-
diately damage or destroy, land or other property, including, but not limited to, rare, threatened, or endan-
gered native plants, wildlife, or aquatic species, may be taken immediately by the owner of the livestock,
land, or property the owner or tenant, under appropriate regulations, authorize

(d) Notwithstanding Section 4763, any part of any bear lawfully possessed pursuant to this section is

(e) Nothing in this section prohibits federal, state, or county trappers from killing or trapping bears
when the bears are killing or molesting livestock, but no iron-jawed or steel-jawed or any type of
metal-jawed trap shall be used to take the bear, and no person, including employees of the state, federal,
or county government, shall take bear with iron-jawed or steel-jawed or any type of metal-jawed traps.

4185. Take Bears Near Beehives in Riverside or San Bernardino Counties; Conditions;
Trap Requirements; etc.

4186. Take Cottontail or Brush Rabbits Damaging Crops or Forage

4187. Permits for Licensed Hunters to Take Wild Pigs or Deer
When a landowner or tenant applies for a permit under Section 4181 for wild pigs, or Section 4181.5 for
deer, the commission, in lieu of such a permit may, with the consent of, or upon the request of, the land-
owner or tenant, under appropriate regulations, authorize

4190. I.D. of Relocated Depredatory Mammals

The department shall tag, brand, or otherwise identify in a persistent and distinctive manner large
depredatory mammal relocated by, or with the approval of, the department for game management pur-

CHAPTER 4. DEER
Article 1. Taking Deer

4301. Deer Meat; Sell, Purchase, or Transport for Purposes of Sale; Exceptions
(a) Subject to the provisions of this code permitting the sale of domestically raised game mammals, it is
udlawful to sell or purchase, or transport for the purpose of sale, any deer meat in this state whether fresh,
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the safety factor, local firearms ordinances, and other factors which apply. Rifle ammunition used shall have
expanding bullets; shotgun ammunition shall have only single slugs.

The department shall issue tags similar to those provided for in Section 4301 at the same time the permit
is issued. A permit under this section shall carry the tags while hunting deer, and upon the killing of any
deer, shall immediately fill out both parts of the tag and punch out clearly the date of the kill. One part
of the tag shall be immediately attached to the entrails or anterior part of the antlered deer to the ear of any
deer and kept attached until ten (10) days after the permit has expired. The other part of the tag shall be immediately sent
to the department after it has been countersigned by any person authorized by Section 4341.

A permit issued pursuant to this section may be renewed only after a finding by the department that fur-
ther damage has occurred or will occur unless such permit is renewed. A person seeking renewal of the per-
mits shall account for all prior tags issued at the time be received any prior permits, and if any tags are
unused, he must show either that any deer killed could not reasonably be tagged or why the killing was not
accomplished within the allotted time and why such killing would be accomplished under a new time pe-

4185. Take Bears Near Beehives in Riverside or San Bernardino Counties; Conditions;
Trap Requirements; etc.

In any district or part of a district within San Bernardino and Riverside Counties, bears may be taken at
any time with traps within a good and substantial fence, as such fence is described in Section 17121 of the
Food and Agricultural Code, surrounding beehives, if no part of the fence is at a distance greater than 50
yards from a beehive, and if a conspicuous sign is posted and maintained at each entrance to the enclosed

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smoked, canned, or preserved by any means, except fallow deer meat processed by a slaughterer in accor-
§ 353. Methods Authorized for Taking Big Game.

(a) Except for the provisions of subsections 353(b) through (g), title 14, CCR, big game (as defined by section 350, title 14, CCR) may only be taken by rifles using centerfire cartridges with softnose or expanding bullets; bow and arrow (see section 354, title 14, CCR, for archery equipment regulations); or wheeless, matchlock, flintlock or percussion type muzzleloading rifles using black or pyrodex powder with single ball or bullet loaded from the muzzle and at least 40 caliber in designation.

(b) Shotguns capable of holding not more than three shells firing single slugs may be used for the taking of deer, bear and wild pigs. In areas where the discharge of rifles or shotguns with slugs is prohibited by county ordinance, shotguns capable of holding not more than three shells firing size 0 or 0000 buckshot may be used for the taking of deer only.

(c) Pistols and revolvers using centerfire cartridges with softnose or expanding bullets may be used to takeake elk and bighorn sheep.

(d) Crossbows may be used to take deer and wild pigs only during the regular seasons.

(e) Muzzleloading rifle hunters may not possess other firearms or archery equipment authorized for taking big game, pursuant to subsections 353(a) through (d), and shall possess muzzleloading rifles equipped with iron sights only, while hunting under the provisions of a muzzleloading rifle only tag.

(g) Under the provisions of a muzzleloading rifle/archery tag, hunters may possess muzzleloading rifles as described in subsection 353(a) equipped with iron sights only; archery equipment as described in Section 354; or both. For purposes of this subsection, archery equipment does not include crossbows.


§ 354. Archery Equipment and Crossbow Regulations.

(a) Bow, as used in these regulations, means any device consisting of a flexible material having a string connecting its two ends and used to propel an arrow held in a firing position by hand only. Bow, includes long bow, recurve or compound bow.

(b) Crossbow, as used in these regulations means any device consisting of a bow or cured latex band or other flexible material (commonly referred to as a linear bow) affixed to a stock, or any bow that utilizes any device attached directly or indirectly to the bow for the purpose of keep


§ 355. Weapons and Ammunition Authorized for the Taking of Big Game.


§ 355.5. Firearms and Archery Equipment Authorized for Taking Nongame Animals During the Open Deer Season.

NOTE: Authority cited: Sections 200-221, Fish and Game Code. Reference: Sections 200-221, Fish and Game Code.
§ 358. Archery Deer Hunting.


HISTORY
1. Amendment of subsection (a) and (b) filed 6-4-76; designated effective 7-1-76 (Register 76, No. 23).
2. Amendment filed 6-14-77; designated effective 7-1-77 (Register 77, No. 22).
3. Amendment filed 6-15-78; designated effective thirtieth day thereafter (Register 78, No. 24).
4. Amendment filed 5-19-80; designated effective 5-19-80 (Register 80, B-21).
5. Amendment of subsections (a) and (c) (3) filed 5-19-80 (Register 80, No. 21).
6. Repealer filed 5-13-81; designated effective tenth day thereafter (Register 81, No. 20).

§ 358.5. Archery Bear Hunting.


HISTORY
1. Amendment of subsection (a) filed 6-13-78; effective thirtieth day thereafter (Register 78, No. 24).
2. Repealer filed 3-11-79; designated effective 7-1-79 (Register 79, No. 19).
3. Change without regulatory effect amending section heading filed 3-28-96 pursuant to section 100, title 1, California Code of Regulations (Register 96, No. 3).

§ 359. Archery Equipment Regulations.


HISTORY
1. New subsection (g) filed 5-11-79; designated effective 7-1-79 (Register 79, No. 19).
2. Repealer filed 6-7-82; designated effective tenth day thereafter (Register 82, No. 24).
§ 363. Pronghorn Antelope.

The Lava Beds National Monument and Federal and State Game Refuges lying within the hunt boundary are closed to pronghorn antelope hunting, except for the state's Hayden Hill (IS) and Black Diamond Island (IF) game refuges in Lassen County and the Clear Lake National Wildlife Refuge in Modoc County. Refer to subsection 363(b)(5) for special conditions for permission to enter and hunt pronghorn antelope in the Clear Lake National Wildlife Refuge.

(a) Zone 1—Mount Dome;

(1) Area: That portion of Siskiyou County within a line beginning at the junction of Interstate 5 and the California-Oregon state line; east along the California-Oregon state line to the Ainsworth Corners-Lava Beds National Monument Road; south along the Ainsworth Corners-Lava Beds National Monument Road to the Mammott-Crater-Medicine Lake Road; southwest along the Mammoth-Crater-Medicine Lake Road to the Medicine Lake-Telephone Flat Flat Road; east and south along the Medicine Lake-Telephone Flat Flat Road to the Telephone Flat-Battle Road; northeast and east along the Battle-Telephone Flat Flat Road to the Telephone Flat-Medicine Lake Road; and south along the Telephone Flat-Medicine Lake Road to a point on the California-Oregon state line.

(2) Seasons:

(A) The general season shall open on the Saturday following the third Wednesday in August and continue for nine consecutive days.

(B) The archery only season shall open 14 days prior to the general season and continue for nine consecutive days.

(3) Bag and Possession Limit: One pronghorn antelope in a license year.

(4) Number of License Tags:

(A) General Season: 5 buck tags and 0 doe tags.

(B) Archery Only Season: 1 buck tag and 0 doe tags.

(b) Zone 2—Clear Lake;

(1) Area: Those portions of Modoc and Siskiyou counties within a line beginning at the junction of the Lava Beds National Monument Road and the California-Oregon state line at Ainsworth Corners; east along the California-Oregon state line to the Crowder Flat Road; south along the Crowder Flat Road to Modoc County Road 73; south along Modoc County Road 73 to Modoc County Road 136; west along Modoc County Road 136 to the Blue Mountain-Mowitz Road; west and south along the Blue Mountain-Mowitz Road to the Deadhorse Hat-Badger Well Road; west and south along the Deadhorse Flat-Badger Well Road to the Badger Well-Brown's Well Road; and south along the Badger Well-Brown's Well Road to the Sorholus Tank-Hackamore Road; southwest along the Sorholus Tank-Hackamore Road to Highway 139; southwest along Highway 139 to Modoc County Road 91; east along Modoc County Road 91 to the Mud Lake-Mud Springs Road; and north along the Mud Lake-Mud Springs Road to the North Main Road; and northwest along the North Main Road to the Long Bell-Iodine Prairie Road; and northwest along the Long Bell-Iodine Prairie Road to the Battle-Telephone Flat Flat Road; and north along the Battle-Telephone Flat Flat Road to the Telephone Flat-Medicine Lake Road; and north and west along the Telephone Flat-Medicine Lake Road to the Medicine Lake-Mammot Craber Road; and northeast along the Medicine Lake-Mammot Craber Road to the Lava Beds National Monument-Ainsworth Corners Road; and north along the Lava Beds National Monument-Ainsworth Corners Road to the California-Oregon state line.

(2) Seasons:

(A) The general season shall open on the Saturday following the third Wednesday in August and continue for nine consecutive days.

(B) The archery only season shall open 14 days prior to the general season.

(3) Bag and Possession Limit: One pronghorn antelope in a license year.

(4) Number of License Tags:

(A) General Season: 20 buck tags and 0 doe tags.

(B) Archery Only Season: 1 buck tag and 0 doe tags.

(5) Special Conditions: The special regulations regarding the Peninsula "U" portion of the Clear Lake National Wildlife Refuge are summarized as follows:

(A) The area will be open on weekends and holidays only during the general season.

(B) Permission to enter this area must be obtained at the gate entrance located on the Clear Lake Road. Hunters for this area will be selected by public drawing. Persons selected for pronghorn antelope tags for Zone 2 (Clear Lake) may apply for this drawing by submitting an application upon receipt of their license tag to the Department of Fish and Game, 601 Locust Street, Redding, CA 96001. Applicants may apply as a party of two. Applications shall consist of the following: a standard U.S. Postal Service postcard with the applicant's tag number, name, address, city, zip code, area code, telephone number, and the notation "Application for Pronghorn Antelope Hunt Access Permit, Clear Lake Peninsula." Applications must reach the Redding office before the close of the business day on the second Friday in August. Successful applicants will be notified.

A two-party application will not be split. The specific number of hunters will be determined each year by the Department. No more than five hunters will be allowed on the area at any one time unless a party of two is drawn for the fifth place. If the fifth place is the first member of a party, then no more than six hunters will be allowed on the area at any time.

(C) The gate entrance will be open from 6:00 a.m. to one hour after sunset.

(D) The fence near the gate entrance constitutes the southern boundary of the area.

(E) The specific number of pronghorn antelope to be taken from this area is determined by the number of pronghorn antelope present. This area will be closed once this number is reached.

(c) Zone 3—Likely Tables:

(1) Area: Those portions of Modoc and Lassen counties within a line beginning at the junction of the Crowder Flat Road and the California-Oregon state line; east along the California-Oregon state line to the crest of the Warner Mountains; and south along the crest of the Warner Mountains to the Summit Trail at Pepperidge Camp; and south along the Summit Trail to the South Warner Road near Patterson Forest Service Station; and west along the South Warner Road to the Long Valley-Clarks Valley Road; and south along the Long Valley-Clarks Valley Road to the Clark Valley-Madeline Road; and west along the Clark Valley-Madeline Road to Highway 395 at the town of Madeline; and north along Highway 395 to the Madeline-Adin Road; and northwest along the Madeline-Adin Road to the Hunsanger Draw-Sweatam Flat Road; and east and north along the Hunsanger Draw-Sweatam Flat Road to the Sweatam Flat-Hunters Ridge Road; and north and west along the Sweatam Flat-Hunters Ridge Road to Highway 299 near Lower Rush Creek Recreation Site; and north along Highway 299 to the Carby Bridge-Cottonwood Flat Road; and northwest along the Carby Bridge-Cottonwood Flat Road to the Cottonwood Flat-Happy Camp Road; and northwest along the Cottonwood Flat-Happy Camp Road to Modoc County Road 91; and north along Modoc County Road 91 to Highway 139; and north along Highway 139 to the Hackamore-Sorholus Tank Road; and northeast along the Hackamore-Sorholus Tank Road to the Browns Well-Badger Well Road; and northeast along the Browns Well-Badger Well Road to the Badger Well-Deadhorse Flat Road; and northeast and east along the Badger Well-Deadhorse Flat Road to the Mowitz-Blair Lake Road; and north and east along the Mowitz-Blair Lake Road to Modoc County Road 136; and east along Modoc County Road 136 to Modoc County Road 73; north along Modoc County Road 73 to the Crowder Flat Road; and northwest along the Crowder Flat Road to the California-Oregon state line.

(2) Seasons:

(A) Period One of the general season shall open on the Saturday following the third Wednesday in August and continue for nine consecutive days.

(B) Period Two of the general season shall open on the first Saturday in September and continue for nine consecutive days.

(C) The archery only season shall open 14 days prior to the earliest general season and continue for nine consecutive days.

(3) Bag and Possession Limit: One pronghorn antelope in a license year.
(A) General Season: Period One: 44 buck tags and 0 doe tags. Period Two: 44 buck tags and 0 doe tags.
(B) Archery Only Season: 7 buck tags and 0 doe tags.
(d) Zone 6—Siskiyou:
(1) Area: Those portions of Lassen, Modoc, and Siskiyou counties within a line beginning at the intersection of Highways 299 and 89 near the Herlong Access Road; north and northwest along the Warner Mountains at Pepperdine Camp; north along the crest of the Warner Mountains to the California-Nevada state line; west along the California-Nevada state line to the Nevada state line; south on the Nevada state line to the juncture of Highways 395 and Lassen County Road A3 near Buntingville; northeast along County Road A3 to Mapes Lane (County Road 305); east and north along Mapes Lane to its junctions with Highway 395 approximately three miles east of Litchfield; east on Highway 395 to the juncture of the Wendel-Plamig Road (County Road 320); east and south on the Wendel-Plamig Road to the Nevada state line; south on the Nevada state line to the Western Pacific-Union Pacific Railroad tracks near Herlong; west on the Western Pacific-Union Pacific Railroad tracks to the North Herlong Access Road (County Road A25); west and south along the north Herlong Access Road (County Road A25) to its juncture with Highway 395; north and west on Highway 395 to the point of beginning.

(2) Seasons:
(A) The general season shall open on the Saturday following the third Wednesday in August and continue for nine consecutive days.
(B) The archery only season shall open 14 days prior to the earliest general season and continue for nine consecutive days.

(3) Bag and Possession Limit: One pronghorn antelope in a license year.
(4) Number of License Tags:
(A) General Season: 10 buck tags and 0 doe tags.
(B) Archery Only Season: 1 buck tag and 0 doe tags.

(h) Honey Lake Junior Pronghorn Antelope Hunt:
(1) Area: That portion of Lassen County, including the Fleming and Dakin units of Honey Lake Wildlife Area, within a line beginning at the junction of Highways 395 and Lassen County Road A3 near Buntingville; northeast along County Road A3 to Mapes Lane (County Road 305); east and north along Mapes Lane to its junctions with Highway 395 approximately three miles east of Litchfield; east on Highway 395 to the juncture of the Wendel-Plamig Road (County Road 320); east and south on the Wendel-Plamig Road to the Nevada state line; south on the Nevada state line to the Western Pacific-Union Pacific Railroad tracks near Herlong; west on the Western Pacific-Union Pacific Railroad tracks to the North Herlong Access Road (County Road A25); west and south along the north Herlong Access Road (County Road A25) to its juncture with Highway 395; north and west on Highway 395 to the point of beginning.

(2) Seasons: The season shall open on the Saturday following the third Wednesday in August and continue for four consecutive days.

(3) Bag and Possession Limit: One pronghorn antelope in a license year.
(4) Number of License Tags: 2 either-sex tags.
(5) Special Conditions: Only persons possessing valid junior hunting licenses and junior hunt license tags may hunt during the junior pronghorn antelope season and in the area specified on the tag. Tagholders shall be accompanied by a nonhunting, licensed adult chaperon 18 years of age or older while hunting; and tagholders shall attend an orientation meeting the day before the opening day of the season.

(ii) Honey Lake Junior Pronghorn Antelope Hunt:
(1) Area: That portion of Lassen County, including the Fleming and Dakin units of Honey Lake Wildlife Area, within a line beginning at the junction of Highways 395 and Lassen County Road A3 near Buntingville; northeast along County Road A3 to Mapes Lane (County Road 305); east and north along Mapes Lane to its junctions with Highway 395 approximately three miles east of Litchfield; east on Highway 395 to the juncture of the Wendel-Plamig Road (County Road 320); east and south on the Wendel-Plamig Road to the Nevada state line; south on the Nevada state line to the Western Pacific-Union Pacific Railroad tracks near Herlong; west on the Western Pacific-Union Pacific Railroad tracks to the North Herlong Access Road (County Road A25); west and south along the north Herlong Access Road (County Road A25) to its juncture with Highway 395; north and west on Highway 395 to the point of beginning.

(2) Seasons: The season shall open on the Saturday following the third Wednesday in August and continue for four consecutive days.

(3) Bag and Possession Limit: One pronghorn antelope in a license year.
(4) Number of License Tags: 2 either-sex tags.
§ 3651. Pronghorn Antelope Tag Allocations - 2003

<table>
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<th>Hunt Area</th>
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HISTORY
1. Amendment of subsections (c)-(g) filed 3-7-2001 pursuant to sections 502 and 5021 (Register 01, No. 10).
2. Amendment of section 586-02-99 pursuant to Fish and Game Code sections 202 and 205 (Register 99, No. 23).
3. Amendment filed 6-27-2000; operative 6-27-2000 pursuant to Fish and Game Code sections 202 and 205 (Register 00, No. 26).
4. Editorial correction of subsection 53(2) (Register 01, No. 10).
5. Change without regulatory effect amending sections 53(1)(2) (filed 3-7-2001 pursuant to section 501, California Code of Regulations (Register 01, No. 10)).
6. Amendment of subsections (a)(4)(A), (j)(4) and (k)(2) filed 3-7-2001 pursuant to sections 586-02-99 (Register 01, No. 21).
7. Amendment filed 6-26-2002; operative 6-26-2002 pursuant to Fish and Game Code sections 202 and 205 (Register 02, No. 26).
8. Amendment filed 6-24-2003; operative 7-1-2003 pursuant to Government Code section 11343.4 (Register 03, No. 26).

§ 364. Elk.

(a) Siskiyou Roosevelt Elk Hunt:
(1) Area: In that portion of Siskiyou County beginning at the junction of Interstate Highway 5 with the California-Oregon state line; east along the state line to Highway 97; southwest along Highway 97 to Siskiyou County Road A-12; west along Road A-12 to Interstate 5; north along Interstate 5 to the point of beginning.
(2) Season: The season shall open on Wednesday preceding the second Saturday in September and continue for 12 consecutive days.
(3) Bag and Possession Limit: 1 elk per season.
(4) Number of License Tags: 25 either-sex tags.

(b) Northeastern California Rocky Mountain Elk Hunt:
(1) Area: Those portions of Siskiyou, Modoc, Lassen, and Shasta counties within a line beginning at the junction of Highway 97 and the California-Oregon state line; east along the California-Oregon state line to the California-Nevada state line; south along the California-Nevada state line to the Tuleadad Red Rock-Clarks Valley Road (Lassen County Roads 506, 512 and 510); west along the Tuleadad Red Rock-Clarks Valley Road to Highway 395 atMadeline; west on USDAForest Service Road 39N08 to Adin; west on Highway 299 to Interstate 5; north on Interstate 5 to Siskiyou County Road A-12; east along Siskiyou County Road A-12 to Highway 97; north on Highway 97 to the point of beginning.
(2) Season: (A) The General Season shall open on the Wednesday preceding the third Saturday in September and continue for 12 consecutive days.
(B) The Archery Only Season shall open on the Wednesday preceding the first Saturday in September and continue for 12 consecutive days.
(3) Bag and Possession Limit: 1 elk per season.
(4) Number of License Tags: 25 either-sex tags.

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shall be valid for five years during the period from July 1 through June 30, and subject to annual review and renewal by the Commission. The application fee covers the initial five-year license period. A fee shall be approved and signed by the landowner.

The department will screen each application for compliance with these requirements. Applications that do not provide the information required will be rejected and returned to the applicant. Any individual whose application has been rejected by the department may appeal that decision to the Commission. Applications accepted by the department will be forwarded for Commission review and approval.

(5) Issuance of Area License: Upon approval of the general management plan, the department, with approval of the Commission, shall issue a license for the taking of any fish, game bird or mammal in said Private Wildlife Management Area pursuant to the regulations of the Commission and the terms and conditions of the permit, which may supersede Fish and Game Code Section 331 (a) and (b) as it pertains to resident hunters and license tag fees for antelope, Section 332(b) and (c) as it pertains to resident hunters and license tag fees for elk, and sections 457-459, related to antelope and either sex deer.

(A) During the initial license year, the take of antelope or elk, will not be authorized, nor shall deer be taken except during the general open season, consistent with the bag and possession limits for the deer hunting zone in which the area is located, unless otherwise stipulated by the Fish and Game Commission. This provision does not apply to renewed licenses provided that the Private Wildlife Management Area has been continuously licensed in the Private Lands Wildlife Habitat Enhancement and Management Program. Upon satisfactory completion of the first year management actions identified in the plan for the Private Wildlife Management Area, the Commission may authorize seasons and bag limits which differ from those established for the general seasons. Hunting must be consistent with the management plans prepared for that area or herd and should not result in an overall negative effect on the species population or herd being hunted as determined by the department.

(6) Annual Review: Annual renewal applications must be submitted to the department no later than March 1. The annual renewal application shall contain a summary of habitat enhancement and management activities, harvest, and full payment of fees for the preceding year. The department shall review each plan to determine that the licensee has fulfilled the obligations as prescribed in the management plan. The annual renewal review shall evaluate the following:

(A) Results of activities carried out during the preceding year, including habitat improvement, wildlife production and population levels, hunter use and harvest of wildlife, including an accurate account of all hunting permits, seals and big game tags;

(B) Recommended changes in the general management plan;

(c) Tags and Seals:

(1) Possession of Tags and Seals: Every person hunting on a Private Wildlife Management Area shall have in their immediate possession a valid California hunting license and the appropriate tag or seal issued by a licensee or their authorized agent. Tags shall be filled out by hunters before hunting. The tags or seals shall permit hunting for the period specified, or until revoked by the licensee or the department. Hunting permits shall only take or possess those species and number of each species as specified by their hunting tags or seals as approved in the management plan. This does not apply to species not included in the management plan which may only be taken in accordance with the provisions of Part 2, Chapters 1-7, and 9 of these regulations and sections 4331 and 4332 of the Fish and Game Code. Hunting permits while on the Private Wildlife Management Area shall be subject to all terms and conditions of the license.

(2) Tag and Seal Procedures:

(A) The department shall furnish each licensee with the appropriate tags or seals required by each management plan. With landowner approval and payment of the additional tag or seal fees, tags or seals issued by the licensee may be exchanged for a tag or seal for the same species for use on any other Licensed Private Wildlife Management Area for the take of the same species.

(B) Any deer hunting who has been issued a deer tag or deer tag application by the department and wishes to hunt on a Private Wildlife Management Area shall exchange an unfilled public tag(s) or tag application(s) of the current license year for a Private Wildlife Management Area deer tag(s). These tags can only be used on a Private Wildlife Management...
Area. In no event shall any hunting permittee take more than two deer each year anywhere in California on either public or private lands. No person shall take more than one buck deer in the X-zones, as defined in Section 360(b), Title 14, CCR.

(c) Any pronghorn antelope hunter who has been issued a buck pronghorn antelope tag by the department and wishes to hunt on a Private Wildlife Management Area within the zone specified on the tag shall exchange an unfilled public buck pronghorn antelope tag of the current license year for a Private Wildlife Management Area buck pronghorn antelope tag. Any pronghorn antelope hunter who has been issued a doe pronghorn antelope tag by the department and wishes to hunt on a Private Wildlife Management Area within the zone specified on the tag shall exchange an unfilled public doe pronghorn antelope tag of the current license year for a Private Wildlife Management Area doe pronghorn antelope tag. In no case shall an exchange occur to allow pronghorn antelope hunting outside the geographic zone or prescribed dates of the original tag, as contained in Section 363, Title 14. No hunter shall exchange a Private Wildlife Management Area pronghorn antelope tag for a public tag.

(d) Immediately upon killing any animal under the authority of the tag issued to them by the department, the hunter shall completely kill out the tag and attach it to the antler or horn of the male animal or to the ear of the female animal. Prior to transporting the carcass from the Private Wildlife Management Area, the hunter shall surrender the record card portion of the tag to the tagger or their designee. The hunter shall have the license tag validated pursuant to the provisions of Section 4341 of the Fish and Game Code and Section 708(a)(8), Title 14, CCR. The completed report card portion of the deer tag or any other species tag shall be returned to the department by the licensee on or before January 1. The license tag shall remain with the animal pursuant to sections 708(a)(3), 708(c)(4), 708(d)(4), Title 14, CCR.

(3) Tag and Seal Fees: The licensee shall pay the department the following fees for each tag and seal authorized annually:

(A) Buck Deer tag ........................................... $ 48
(B) Antlerless Deer tag ................................... $ 48
(C) Either-sex Deer tag ................................... $ 48
(D) Pig tag .................................................. $ 42
(E) Bear tag .................................................... $ 42
(F) Bull Elk tag ................................................ $420
(G) Antlerless Elk tag ...................................... $300
(H) Buck Antelope tag .................................... $ 500
(I) Doe Antelope tag ....................................... $ 70
(J) Turkey tag ................................................. $ 18
(K) Upland Game seals ..................................... $0.90

(d) Operation of a Private Wildlife Habitat Enhancement and Management Area:
(1) Posting: Private Wildlife Management Areas shall be posted by the licensee by placing signs which have been approved by the department and that forbid trespass. Signs shall be placed at intervals not less than three to the mile along exterior boundaries and at all roads and trails entering such lands. Where the area is bounded by land open to public hunting, posting shall be required with signs posted at intervals not less than eight to the mile. These signs shall identify both ingress to the Area and egress from the Area. Posting shall be completed no later than fourteen days prior to hunting within either the Area or adjacent public deer hunting zone, and maintained for the life of the license. Posting shall ensure that all boundaries are clearly marked and that no public access roads or areas appear to be closed.

(2) Records: The licensee shall maintain accurate records of all tags and seals and make such records available to the department upon request. The licensee shall provide the department with the location of where records will be kept and available for inspection. An accurate accounting of all hunting tags and seals authorized shall be submitted to the Licenses and Revenue Branch, 3211 S Street in Sacramento, CA 95816, by March 1 of each year. Such accounting shall include the actual exchanged tags or applications provided by the individual hunters on each area. Each licensee shall pay for all the previous year’s authorized tags and seals by March 1. In the event a licensee fails to remit all fees by March 1, the department may require full payment of all tags and seals prior to the next license year.

(e) Revocation of Licenses, Tags, and Seals:

(1) License: A Private Lands Wildlife Habitat Enhancement and Management Area license may be suspended temporarily by the Director, upon their verification of the facts, for a breach or violation of the terms of the license by the holder thereof, or by any person acting under their direction or control or in cooperation with them. The Commission shall be notified of any such suspension and subsequently may revoke or reinstate the license or fix the period of suspension after written notice and a hearing at the next scheduled Commission meeting has been provided to the licensee by the Commission. Any licensee convicted of a violation of the Fish and Game Code or regulations made pursuant thereto or a violation of the terms and conditions of their license must appear before the Commission prior to the issuance of a new license.

(2) Tags and Seals: The licensee, their designee, or any employee of the department may revoke a Private Wildlife Management Area hunting tag or tags, seal or seals for a violation of any Fish and Game law or regulation or the terms and conditions of a Private Lands Wildlife Habitat Enhancement and Management Area license.

(f) Termination of License: A licensee may elect to terminate involvement with the Private Lands Wildlife Habitat Enhancement and Management Program only after giving the Commission and the department ten days notice of their intent to withdraw. The licensee must submit a certificate of intent to the Fish and Game Commission and the nearest regional office of the Department of Fish and Game along with a full accounting of all tags and seals used, exchange tags received, and all fees due the department. Prior to the department receiving this notice and full accounting with fees due, the licensee must abide by the terms and conditions of the license issued pursuant to Section 3402 of the Fish and Game Code.

(g) No person shall violate any of the provisions of this section or any license issued pursuant thereto. Failure to comply therewith may result in:

(1) denial of application
(2) revocation of license and/or tags and seals
(3) citation under the provisions of the Fish and Game Code.


HISTORY
1. New section Bled 9-16-81; effective thirtieth day thereafter (Register 81, No. 38).
2. New section added 9-17-81 as on emergency; effective upon filing (Register 82, No. 38).
3. Certificate of Compliance filed 9-23-81 (Register 81, No. 38).
4. Repealer and new section Bled 6-7-82; effective thirtieth day thereafter (Register 82, No. 24).
5. Amendment of subsection (d)(2) Bled 6-7-83; effective thirtieth day thereafter (Register 83, No. 25).
6. Amendment of subsection (d)(2) Bled 8-16-84; effective upon filing pursuant to Government Code section 11346.2(d) (Register 84, No. 33).
7. Amendment Bled 4-8-87, operative 4-8-87 (Register 87, No. 15).
8. Amendment filed 2-10-89; operative 2-10-89 (Register 89, No. 6).
9. Editorial correction of subsection (b)(3) printing error (Register 89, No. 39). Ed. Note: The amendment Bled 2-10-89 increasing a non-refundable license fee from $400 to $800 was inadvertently omitted during the production of Register 89, No. 8.
10. Editorial correction of printing error in subsection (b)(1) (Register 91, No. 31).
11. Amendment of section heading, subsections (a)(2) and (c)(2) and new subsection (g) Bled 2-7-83; operative 2-7-93 (Register 93, No. 15).

Chapter 10. Areas Closed to Hunting

§ 625. Area Closed: Birds or Mammals.

For the purpose of facilitating the operation of the Sutter National Wildlife Refuge, it is unlawful to take birds or mammals by hunting on
§ 670.2  BARCLAYS CALIFORNIA CODE OF REGULATIONS  Title 14

(1) Petition Action Warranted.
(A) Listing. A species shall be listed as endangered or threatened, as defined in sections 2062 and 2067 of the Fish and Game Code, if the Commission determines that its continued existence is in serious danger or is threatened by any one or any combination of the following factors:
1. Present or threatened modification or destruction of its habitat;
2. Overexploitation;
3. Predation;
4. Competition;
5. Disease; or
6. Other natural occurrences or human-related activities.
(B) Delisting. A species may be delisted as endangered or threatened, as defined in sections 2062 and 2067 of the Fish and Game Code, if the Commission determines that its continued existence is no longer threatened by any one or any combination of the factors provided in subsection (i)(1)(A) above.

1. Status During Delisting Process. A threatened or endangered species petitioned for delisting shall retain its listed status throughout the delisting process.
2. Removal of Species. After the Commission has determined that the petitioned action is warranted, a delisted species shall retain its listed status for 30 days after the Office of Administrative Law has approved the associated rulemaking file and filed the rulemaking regulation with the Secretary of State.

(C) Uplisting and Downlisting. A threatened species may be uplisted to endangered if its continued existence throughout all or a significant portion of its range is in serious danger of becoming extinct by any one or any combination of the factors listed in subsection (i)(1)(A) above. An endangered species may be downlisted to threatened if it is no longer in serious danger of becoming extinct but special protection and management are still required because of continued threats to its existence by any one or any combination of the factors listed in subsection (i)(1)(A) above.

(2) Petition Action Not Warranted. The commission shall enter its findings in the public records and the subject species shall revert to its status prior to the filing of the petition.

(i) Submission of Regulatory Document. The department shall prepare an Initial Statement of Reasons for Regulation Change (also called Pre-publication of Notice Statement), including an assessment of the potential for adverse economic impact pursuant to Government Code Sections 11346.5 and 11346.53, when listing, delisting or change in status is recommended in the Department's report prepared pursuant to subsection (f) of this section. This document shall be submitted to the commission staff at the commission meeting after final consideration of the petitioned action is warranted, a delisted species shall retain its listed status until 30 days after the Office of Administrative Law has approved the petitioned action.

NOTE: Authority expired: Sections 2071 and 2071.5, Fish and Game Code. Refer to section 2072 for the status of the species.

1. New sections filed 5-30-86; effective thirtieth day thereafter (Register 86, No. 22).
2. Amendment of subsection (a) filed 8-31-90; operative 9-30-90 (Register 90, No. 42).
3. Amendment of section and NOTE filed 8-29-94; operative 9-28-94 (Register 94, No. 36)

§ 670.2.  Plants of California Declared to Be Endangered, Threatened or Rare.

The following species, subspecies and varieties of California native plants are hereby declared to be endangered, threatened (as defined by section 2067 of the Fish and Game Code) or rare (as defined by section 1901 of the Fish and Game Code), as indicated:

(a) Endangered:
(1) Agavaceae (Agave Family)
(A) Agave salmiana (Delaware Agave)
(B) Agave utahensis (Utah Agave)
(2) Amaryllidaceae (Amaryllis Family)
(A) Agave atrovirens (Hill's agave)
(B) Agave utahensis (Utah Agave)
(C) Agave salmiana (Delaware Agave)
(3) Apiaceae (Carrot Family)
(A) Eryngium arvense var. parviflorum (San Diego button-celery)
(B) Eryngium constancei (Loch Lomond button-celery)
(C) Eryngium racemosum (Delta button-celery)
(4) Asteraceae (Sunflower Family)
(A) Baccharis named (Eucalyptus baccharis)
(B) Blennosperma bakeri (Sonoma sunshine)
(C) Cirsium diatypum (Ashland thistle)
(D) Cirsium fontinale var. fontinale (Chino thistle)
(E) Cirsium fontinale var. occidentale (Chino Creek thistle)
(F) Eriophyllum latifolium (San Mateo woolly sunflower)
(G) Helianthus niveus ssp. tephrodes (Algodones Dunes sunflower)
(H) Hemizonia conjugens (Oat hay)
(I) Hemizonia increscens ssp. villosa (Gaviota thistle)
(J) Hemizonia mochensis (Ojai hay)
(K) Holocarpha macrensis (Santa Cruz thistle)
(L) Lasthenia bertkei (Burke's goldfields)
(M) Layia camosa (beach layia)
(N) Lessingia germanorum (San Francisco lessingia)
(O) Pentactaechtae belli flora (white-rayed pentactaechtae)
(P) Pentactaechtae tyoni (Lyons' pentactaechtae)
(Q) Pseudobahia bahifolia (Hartweg's golden sunburst)
(R) Pseudophytae peisoni (San Joaquin golden sunburst)
(S) Berberidaceae (Barberry Family)
(A) Berberis nevinii (Nevin's barberry)
(B) Berberis pinnata ssp. insularis (Island barberry)
(C) Mahonia somesi (Truckee barberry)
(D) Borageaceae (Borage Family)
(A) Ansinkia grandiflora (large-flowered fiddleneck)
(B) Plagiochloths diffusus (San Francisco popcorn-flower)
(7) Brassicaceae (Mustard Family)
(A) Arabis macdonaldii (McDonald's rock cress)
(B) Cauloamis californica (California jewel-flower)
(C) Erysimum capitatum var. angustatum (Contra Costa wallflower)
(D) Erysimum menziesii (Menzies' wallflower)
(E) Erysimum tereifolium (Santa Cruz wallflower)
(F) Dorippa subumbellata (Tahoe yellow cress)
(G) Streptanthus niger (Tiburon jewel-flower)
(H) Thetysdium stenopetalum (slender-petaled thelypodium)
(8) Cactaceae (Cactus Family)
(A) Oropuntia basilaris var. releae (Bakersfield cactus)
(9) Campanulaceae (Bellflower Family)
(A) Downingia concolor var. brevior (Guyarmaca Lake downingia)
(10) Caryophyllaceae (Pink Family)
(A) Arenaria paludicola (marsh sandwort)
(B) Silene campanulata ssp. campanulata (Red Mountain catchfly)
(11) Chenopodiaceae (Goosefoot Family)
(A) Atriplex ruaneas (Bakersfield smallscale)
(B) Nitrophia mochensis (Amaragosa nitrophia)
(12) Comvolulaceae (Morning-glory Family)
(A) Calystegia stebbinsii (Stebbins' morning-glory)
(B) Stebbins' morning-glory)
(13) Crassulaceae (Stonecrop Family)
(A) Dudleya brockmanii ssp. brevifolia (short-leaved dudleya)
(B) Dudleya traskiae (Santa Barbara Island dudleya)
(C) Parvisidium leiovarum (Lake County stonecrop)
(14) Cressaceae (Cress Family)
(A) Capsicum abramsana (Santa Cruz cypress)
(15) Gomphaceae (Sedge Family)
(A) Carex albida (white sedge)
(16) Ericaceae (Heath Family)
(A) Arctostaphylos densiflora (Vine Hill manzanita)
(B) Arctostaphylos hooker ssp. heathorum (Heath's manzanita)
(C) Arctostaphylos hooker ssp. ravenii (Presidio manzanita)
(D) Arctostaphylos imbricata (San Bruno Mountain manzanita)
(E) Arctostaphylos pacifica (Pacific manzanita)
(F) Arctostaphylos pallida (pallid manzanita)
(G) Omithostaphylos oppositifolia (Baja California birdbush)
(17) Fabaceae (Pea Family)
(A) Astragalus agnicidus (Humboldt milk-vetch)
(B) Astragalus lentigosus var. sesquimetrals (Sodaville milk-vetch)
(C) Astragalus magdalenei var. peirsonii (Peirson's milk-vetch)
(D) Astragalus pyenostachyus var. lanissimus (Ventura marsh milk-vetch)
(E) Astragalus tenuis var. triti (coastal dunes milk-vetch)
(F) Lotus argophyllus var. adsurgens (San Clemente Island bird's-foot trefoil)
(G) Lotus argophyllus var. niveius (Santa Cruz Island bird's-foot trefoil)

(H) Limnandrus var. traskiae (San Clemente Island louse)
(I) Lupinus niphomensis (NiPomo Mesa lupine)
(J) Lupinus tidesromii var. tidesromii (Tidestrom's lupine)
(K) Trifolium trichocauda (Monte nty clover)

(18) Hydrophyllaceae (Waterleaf Family)
(A) Eriophyllum alntissum (Indian Knob mountainbalm)

(19) Lamiastrum (Mint Family)
(A) Acamanthina dattanii (San Mateo thom-mint)
(B) Acamanthina ilicifolia (San Diego thom-mint)
(C) Monardella lindleyi var. lindley (willowy monardella)
(D) Pogonys abiusmis (San Diego mesa mint)
(E) Pogonyne clareana (Santa Lucia mint)
(F) Pogonyne nudiuscula (Ootsy Mesa Mint)

(20) Lilacaeae (Lilac Family)
(A) Fritillaria roderickii (Otay Mesa Mint)

(21) Limnanthaceae (False Mermaid Family)
(A) Limnanthes douglasii var. sulphurea (Point Reyes meadowfoam)
(B) Limnanthes doucoccia var. californica (Butte County meadowfoam)
(C) Limnanthes gracilis var. parishii (Parish's meadowfoam)
(D) Limnanthes vinculans (Sebastopol meadowfoam)

(22) Linaceae (Flax Family)
(A) Hesperolinon didymocarpum (Lake County western flax)
(B) Malacothamnus clementinus (San Clemente Island bush mallow)

(23) Malvaceae (Mallow Family)
(A) Allium munzii (Munz's onion)
(B) Malacothamnus fasciculatus var. resinosaeus (Santa Cruz Island bush mallow)

(C) Sidalcea coevillei (Owens Valley checkerbloom)
(D) Sidalcea oxytoma var. valida (Kenwood Marsh checkerbloom)

(24) Oenothericaceae (Evening-prime rose Family)
(A) Clarkia franciscana (Presidio clarkia)
(B) Clarkia imbricata (Vine Hill clarkia)
(C) Clarkia lingulata (Merced clarkia)
(D) Clarkia spiciflora (Springville clarkia)

(25) Poaceae (Grass Family)
(A) Dichanthelium lanuginosum var. thermalae (Geyser's dichanthelium)
(B) Neastaplia colusana (Colusa grass)
(C) Orecuta californica (California Orecuta grass)
(D) Orecuta inequata (San Joaquin Valley Orecuta grass)
(E) Orecuta pilosa (hairy Orecuta grass)
(F) Orecuta tenuis (slender Orecuta grass)
(G) Orecuta viscida (Sacramento Orecuta grass)

(H) Poa napensis (Napa blue grass)

(26) Polemoniaceae (Phlox Family)
(A) Erirastrum densifolium ssp. sanguineum (Santa Ana River woollystar)
(B) Navarretia lanceocephala ssp. pleiantha (many-flowered navarretia)

(C) Phlox hirsuta (Yreka phlox)

(27) Polygokaceae (Buckwheat Family)
(A) Chorizanthe orcutii (Orcutt's spignetflower)
(B) Chorizanthe parryi var. fremandina (San Fernando Valley spignetflower)

(C) Chorizanthe valida (Sonoma spignetflower)
(D) Dodecahema leptoceras (slender-kerneled spignetflower)

(E) Eriogonum alpinum (Trinity buckwheat)
(F) Eriogonum trimontium var. quercifolium (Pine buckwheat)

(G) Eriogonum apricum var. prostratum (Irish Hill buckwheat)

(H) Eriogonum ericifolium var. thomae (Thorne's buckwheat)
(I) Eriogonum grande ssp. timorun (San Nicholas Island buckwheat)

(J) Eriogonum kelloggii (Kellogg's buckwheat)

(28) Ranunculaceae (Buttercup Family)
(A) Delphinium variatum ssp. kinkiense (San Clemente Island larkspur)

(29) Rhamnaceae (Buckthorn Family)
(A) Ceanothus ophicocculus (Vail Lake ceanothus)

(30) Rosaceae (Rose Family)
(A) Cercocarpus traskii (Catalina Island mountain-mahogany)
(B) Potentilla hickmani (Hickman's cinquefoil)

(C) Rosa miniata (small-leaved rose)

(31) Rubiaceae (Madder Family)
(A) Gaulium cal DOWN ssp. acris (San Clemente Island bedstraw)

(32) Saxifragaceae (Saxifrage Family)
(A) Lithophragma maximum (San Clemente Island woodland star)

(33) Scrophulariaceae (Figwort Family)
(A) Castilleja canescens (Gotch fluuent plant)

(B) Castilleja gressa (San Clemente Island Indian paintbrush)

(C) Castilleja ultrigosa (Petkin Marsh Indian paintbrush)

(D) Cordylanthus maritimus ssp. maritimus (salt marsh bird's-beak)

(E) Cordylanthus palmatus (palmate-bracted bird's-beak)

(F) Cordylanthus rigidus ssp. littoralis (seaside bird's-beak)

(G) Cramia heterophylla (Boggs Lake hedge-hysop)

(b) Threatened:

(1) Amaranthaceae (Amaranths Family)

(A) Allium munitzii (Munz's onion)

(2) Asteraceae (Sunflower Family)

(A) Cirsium longinches (La Graciosa thesis)

(B) Cirsium rhodophyllan (surf thistle)

(C) Cirsium rhodophyllan (surf thistle)

(D) Cissus dinitia (crowbeard)

(3) Boraginaceae (Borage Family)

(A) Plagiobothrys strictus (Callistoga pop-mflower)

(4) Brassicaeae (Mustard Family)

(A) Dihyra maritima (beach spectacledp)

(B) Rorippa gambellii (Gambell's water cress)

(5) Crassulaeae (Stonecrop Family)

(A) Dudleya ulovifera (Laguna Beach dudleya)

(6) Fabaceae (Pea Family)

(A) Astragalus clarianus (Clara Hunt's milk-vetch)

(B) Lupinus alpinus var. deflexus (Mariposa lupine)

(C) Lupinus mili-bakeri (Milo Baker's lupine)

(7) Liliaceae (Lily Family)

(A) Calochortus tiburonensis (Tiburon mariposa lily)

(B) Fritillaria striata (striped adobe-lily)

(8) Linaceae (Flax Family)

(A) Hesperolinon congestum (Marin western flax)

(9) Phladelphiaeae (Mock Orange Family)

(A) Carpenteria californica (tree-anemone)

(10) Poaceae (Grass Family)
(A) Pleurospogon howeri (North Coast semaphore grass)
(11) Polemoniaceae (Phlox Family)
(A) Cilia tenax ssp. arenaria (sand gilia)
(B) Navarretia leucophaca ssp. pauciflora (few-flowered
navarretia)
(12) Polygonaceae (Buckwheat Family)
(A) Choriogonum howellii (Howell’s spineflower)
(13) Scrophulariaceae (Figwort Family)
(A) Castilleja affinis ssp. neglecta (Tribon Indian pampbrush)
(14) Verbenaecae (Vervain Family)
(A) Verbena californica (California vervain)
(c) Rare:
(1) Armeriaceae (Armaryllis Family)
(A) Allium yosemitense (Yosemite onion)
(B) Blyosmum hamilis (dwarf goldenstar)
(2) Apiaceae (Carrot Family)
(A) Sanicula maritima (adobe sardelle)
(C) Sanicula saxatilis (rock sardelle)
(3) Asteraceae (Sunflower Family)
(A) Binnonema rubustum (Point Reyes binnonema)
(B) Eriophyllum congdonii (Congdon’s woolly sunflower)
(C) Helenium arida (Red Rock tarplant)
(D) Helenium miidionum (Santa Susanna tarplant)
(E) Macantha anagovea (Mound Laguna aster)
(F) Senecio gaudi (Gander’s ragwort)
(G) Senecio layneae (Layne’s ragwort)
(4) Boraginaceae (Borage Family)
(A) Cryptantha rossioorum fimbriateone cryptantha
(5) Brassicaceae (Mustard Family)
(A) Cnolaus spinosus (sneezeweed)
(6) Campanulaceae (Bellflower Family)
(A) Nemacalas twisselmannii (Twisselman’s nemadactis)
(7) Cassiulariae (Stonecrop Family)
(A) Dudleya cymosa ssp. marcescens (maroosce dudleya)
(B) Dudleya vestita (Santa Cruz Island dudleya)
(C) Cyperaceae (Sedge Family)
(A) Carex tompkinsii (Santa Cruz Island dudleya)
ssp.
(8) Cyperaceae (Sedge Family)
(A) Carex tompkinsii (Santa Cruz Island dudleya)
ssp.
(9) Ericaceae (Heath Family)
(A) Arctostaphylos bakeri (Baker’s manzanita)
(B) Arctostaphylos edmundsi var. parvifolia (Hanging Gardens man-
zanita)
(10) Euphorbiaceae (Spurge Family)
(A) Croton wigginii (Wiggins’ croton)
(historical)
(11) Fabaceae (Pea Family)
(A) Astragalus johannis-howelli (Long Valley milk-vetch)
(B) Astragalus monovis var. monovis (Mono milk-vetch)
(C) Astragalus tassius (Trask’s milk-vetch)
(D) Lupinus padre-crowleyi (Father Crowley’s lupine)
(E) Thermopsis macrophylla var. agnina (Santa Ynez false lupine)
(F) Trifolium polyon (Pacific Clover g Rover)
(12) Hydrophyllaceae CWaterleaf Family
(A) Eriodcyon capitatum (Lompoc yerba santa)
(13) Liliaceae (Lily Family)
(A) Calochortus dunnii (Dunn’s mariposa lily)
(B) Calochortus persistens (Siskiyou mariposa lily)
(C) Chlorogalum purpureum var. redunad (Carnata Canyon amole)
(14) Limnanthaceae (False Mermaid Family)
(A) Limnanthes bakeri (Baker’s meadowfoam)
(15) Malvaceae (Mallow Family)
(A) Sidalcea hickmani ssp. anomalosa (Cuesta Pass checkerblom)
(B) Sidalcea hickmani ssp. parishii (Parish’s checkerblom)
(16) Onagraceae (Evening-primrose Family)
(A) Clarkia spectabilis ssp. immaculata (Flamo clarkia)
(B) Oenothera californica ssp. eurekensis (Eureka Dunes evening-
primrose)
(17) Poaceae (Grass Family)
(A) Agrostis blisdalei var. marinensis (Marin bent grass)
(B) Calamagrostis falkis (leafy reed grass)
(C) Swallenia alexandreae (Eureka Valley dune grass)
(D) Tectoria greenei (Greene’s tectoria)
(18) Polemonaceae (Phlox Family)
(A) Erinusstrum tracyi (Tracy’s eirusstrum)
(19) Polygonaceae (Buckwheat Family)
(A) Dodeckera eurekensis (July gold)
(B) Eriogonum butleri/Orthianum (Butterworth’s buckwheat)
(C) Eriogonum crocatum (Conejo buckwheat)
(D) Eriogonum giganteum var. compactum (Santa Barbara Island
buckwheat)
(1) Armeriaceae (Armaryllis Family)
(A) Lewisia congdonii (Congdon’s lewisia)
(21) Ranunculaceae (Buttercup Family)
(A) Delphinium bakeri (Baker’s larkspur)
(B) Delphinium hesperium ssp. cuyamacae (Cuyamaca larkspur)
(C) Delphinium lacutum (yellow larkspur)
(22) Ranunculaceae (Buttercup Family)
(A) Ceanothus hearstiorum (Heard’s ceanothus)
(B) Ceanothus maritimus (marine ceanothus)
(C) Ceanothus masonii (Mason’s ceanothus)
(D) Ceanothus rodericus (Pine Hill ceanothus)
(23) Rosaceae (Rose Family)
(A) Ivesia callida (Tahquitz ivesia)
(24) Rubiaceae (Madder Family)
(A) Galium angustifolium ssp. borregoense (Borrego bedstraw)
(B) Galium buxifolium (box bedstraw)
(C) Galium californicum ssp. sierra (El Dorado bedstraw)
(25) Saxifragaceae (Saxifrage Family)
(A) Bersonia oregea (bersonia)
(26) Scrophulariaceae (Figwort Family)
(A) Castillea gleasonii (ML Gleason Indian paintbrush)
(B) Cordylanthus mollis ssp. mollis (soft bird’s-beak)
(C) Cordylanthus nudibarbis (ML Diablo birds-beak)
(D) Cordylanthus tenuis ssp. capitatii (Pennei’s bird’s-beak)
(E) Holmgrenanthus petrophiola (rock lady)
(ff) Pedicularis dulleyi (Dudley’s loosewort)
(27) Sterculiaceae (Cacao Family)
(A) Fremontodendron decumbens (Pine Hill flannelbush)
(B) Fremontodendron mexicanum (Mexican flannelbush)

NOTE: Authority cited: Sections 1904 and 2070, Fish and Game Code. Reference: Title 1755, Sections 1904, 2062, 2067, 2070, 2072.7 and 2075.5. Fish and Game Code.

1. New section filed 10-11-78; effective thirtieth day thereafter (Register 78, No. 41).
2. Amendment of subsections (a)(10), (b)(10), (b)(17) and new subsections
(a)(12)(a)(27) and (b)(19)(2)(b)(21) filed 6-11-79; effective thirtieth day there­
after (Register 79, No. 24).
3. Amendment filed 8-9-79; effective thirtieth day thereafter (Register 79, No. 32).
4. Amendment filed 10-17-79; effective thirtieth day thereafter (Register 79, No. 42).
5. Repealer and new section Sled 7-16-81; effective thirtieth day thereafter (Register 81, No. 29).
6. Amendment of new subsections (a)(21)-27, filed 12-27-78; effective thirtieth day thereafter (Register 79, 23).
7. New subsections (a)(7)(d)(2), (a)(14)(e) and (F), (a)(18)(g), (a)(26)(e) and (f), (e),
(a)(25)(h), (a)(26)(h), (a)(27) and (a)(28) filed 1-13-82; effective thirtieth day afterward (Register 82, No. 3).
8. Amendment of subsections (a)(4)(h), (a)(7)(e), (a)(14)(g) and (H), and (a)(8)(d),
(a)(24)(f), (a)(29)(a)(31) filed 1-3-82; effective thirtieth day afterward (Register 82, No. 12).
9. Amendment of subsection (a)(26) and new subsections (b)(2)(c),
(b)(3)(f)(1), (b)(16)(e)(f), (b)(20)(e), (b)(20)(b), and (b)(24)-(27) filed
6-4-82; effective thirtieth day afterward (Register 82, No. 23).
10. New subsections (b)(1)(B), (b)(3)(E), (b)(9)(f) and (G), (b)(11)(I),
(b)(14)(C), (b)(17)(C), (b)(18)(D), (b)(20)(E), and (b)(22) and (23) filed
6-4-82; effective thirtieth day afterward (Register 82, No. 23).
11. Amendment of subsection (a)(3) and new subsection (a)(26)(H) filed
4-20-84; effective thirtieth day afterward (Register 84, No. 16).
12. Editorial correction filed 7-20-84 (Register 84, No. 29).

Rajbari Z.A.K. No. 1, 1-3 - 2003
Title 14
Fish and Game Commission
§ 670.5

Animals of California Declared to Be Endangered or Threatened.

The following species and subspecies are hereby declared to be endangered or threatened, as indicated, and subject to section 670.10 (all of the code).

(a) Endangered:

(1) Crustaceans:

(A) California freshwater shrimp (Syncarids pacifica)

(B) Shasta crayfish (Pacifastacus leniusculus)

(2) Fishes:

(A) Bull trout (Salvelinus confluentus)

(B) Mohave cichlid (Gila bicolor mohavensis)

(C) Owens cichlid (Gila bicolor snederi)

(D) Bonytail (Gila elegans)

(3) Gastropods:

(A) Trinity bivalve (Cyprinodon salinus milleri)

(B) Delta smelt (Cottus asperrimus)

(C) Black toad (Bufo exsul)

(D) Spring-run chinook salmon (Oncorhynchus tschawytscha)

(E) California clapper rail (Ratnus longiaris obsoletus)

(F) Light-footed clapper rail (Rallus longirostris levipes)

(G) California least tern (Sternula antillarum barrowi)

(H) California clapper rail (Ratnus longiaris obsoletus)

(I) Belding's savannah sparrow (Passerculus sandwichensis beldingii)

(J) Great grey owl (Strix nebulosa)

(K) Least Bell's vireo (Vireo pallidus)

(L) Inyo California towhee (Pipilo crissalis eremophilus)

(M) Willow flycatcher (Empidonax traillii)

(N) Arizona Bell's vireo (Vireo bellii arizonei)

(O) American woodpecker (Melanerpes uropygialis)

(P) Gilded northern flicker (Colaptes auratus chrystoides)

(2) Mammals:

(A) Tipton kangaroo rat (Dipodomys nitritoides exilis)

(B) Fresno kangaroo rat (Dipodomys californicus)

(C) Santa Cruz long-toed salamander (Ambystoma macrodactylosum)

(D) Salt-marsh harvest mouse (Reithrodontomys raviventris)

(E) Warmouth (Lepidosardes ocellatus)

(F) Panchote newt (Batrachoseps stebbinsi)

(G) Grapevine salamander (Batrachoseps simatus)

(H) Northern red-legged frog (Rana aurora aurora)

(I) San Francisco garter snake (Thamnophis sirtalis tren CC)

(J) Inyo California towhee (Colaptes auratus chrysoides)

(K) Gilded northern flicker (Colaptes auratus chrystoides)

(L) San Francisco garter snake (Thamnophis sirtalis tren CC)

(M) Spring—run chinook salmon (Oncorhynchus tschawytscha) of the Sacramento River drainage.

(3) Amphibians:

(A) Siskiyou mountain salamander (Plethodon ordii)

(B) Kern Canyon slender salamander (Trachysalamus simus)

(C) Tehachapi slender salamander (Trachysalamus stebbinsi)

(D) Limestone salamander (Hydromantes brunus)

(E) Sheet salamander (Hydromantes shastae)

(F) Black toad (Bufo exsul)

(G) Desert harlequin frog (Lithobates vaughani)

(H) Desert toad (Bufo americanus)

(I) Desert toad (Bufo deserti)

(J) Desert toad (Bufo boreas)

(K) Desert toad (Bufo alvarius)

(L) Desert toad (Bufo alvarius)

(M) Desert toad (Bufo alvarius)

(N) Desert toad (Bufo alvarius)

(O) Desert toad (Bufo alvarius)

(P) Desert toad (Bufo alvarius)

(Q) Desert toad (Bufo alvarius)

(R) Desert toad (Bufo alvarius)

(S) Desert toad (Bufo alvarius)

(T) Desert toad (Bufo alvarius)

(U) Desert toad (Bufo alvarius)

(V) Desert toad (Bufo alvarius)

(W) Desert toad (Bufo alvarius)

(X) Desert toad (Bufo alvarius)

(Y) Desert toad (Bufo alvarius)

(Z) Desert toad (Bufo alvarius)

(A) Desert toad (Bufo alvarius)

(B) Desert toad (Bufo alvarius)

(C) Desert toad (Bufo alvarius)

(D) Desert toad (Bufo alvarius)

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(S) Desert toad (Bufo alvarius)

(T) Desert toad (Bufo alvarius)

(U) Desert toad (Bufo alvarius)

(V) Desert toad (Bufo alvarius)

(W) Desert toad (Bufo alvarius)

(X) Desert toad (Bufo alvarius)

(Y) Desert toad (Bufo alvarius)

(Z) Desert toad (Bufo alvarius)
(D) Alameda whipsnake (Masticophis lateralis euryxanthus)
(E) Giant garter snake (Thamnophis cauochi gigas)
(5) Birds:
(A) Swainson’s hawk (Buteo swainsoni)
(B) California black rail (Laterallus jamaicensis cotomacularus)
(C) Yuma clapper rail (Rallus longirostris yumanensis)
(D) Greater sandhill crane (Grus canadensis tabida)
(E) Bank swallow (Riparia riparia)
(6) Mammals:
(A) Mohave ground squirrel (Spermophilus mohavensis)
(B) San Joaquin antelope squirrel (Ammospermophilus nelsoni)
(C) Stephens’ kangaroo rat (Dipodomys stephensi)
(D) Sierra Nevada red fox (Vulpes vulpes nevadensis)
(E) San Joaquin kit fox (Vulpes macrotis mutica)
(F) Island fox (Urocyon littoralis)
(G) Wolverine (Gulo gulo)
(H) Guadalupe fur seal (Arctocephalus townsendi)
(T) Peninsular big brown sheep (Ovis canadensis cremnobates)


It is the policy of the commission that the department shall monitor and report on the impact of ongoing management efforts for and the status of species or subspecies listed herein that were previously considered for candidacy or listing by the commission. The commission may reconsider listing any of these species or subspecies at any time based upon a new petition submitted pursuant to sections 2071 or 2072.7 of the Fish and Game Code. Any petition implemented pursuant to this section will be considered by the commission in accordance with procedures set forth in Article 2, Chapter 1.5, of the Fish and Game Code (California Endangered Species Act).

(a) Monitored Species and Subspecies. Note: There are no species currently listed.

NOTE: Authority cited: Section 703, Fish and Game Code. Reference: Sections 703, 2071 and 2072.7, Fish and Game Code.

1. New section filed 8-29-96; operative 9-28-96 (Register 96, No. 35).
2. Amendment of subsection (a) and repealer of subsection (a)(1) filed 10-4-2000; operative 11-3-2000 (Register 2000, No. 40).

§ 670.7. Permits to Take Fully Protected Animals for Scientific Purposes.

The department may issue revocable permits to take fully protected species for scientific purposes under the following conditions:

(a) Permits may be issued only to members of the faculty or professional staff of a scientific or educational institution; professional wildlife staff of a department of government agency or private institution; or others who are deemed qualified by the department.

(b) Requests for permits to take fully protected species shall be submitted to the department in writing, and shall include the following information:

1. Name and address of applicant.
2. Species and number to be collected.
3. Scientific background and research experience of principal investigators and assistants.

(c) Description of proposed study, with reference to the literature, including purpose, methods of capture, materials, expected result, and intended disposition of animals collected or handled.

(d) Duration of study; locality and periods of sampling or capture.

(e) Revocable permits issued by the department shall be in the form of a memorandum of understanding. The memorandum shall include the conditions under which taking of animals may be permitted, beginning and termination dates, and requirements for periodic reports to the department, which shall be at least yearly. The memorandum, and any addenda to it, shall be signed by the director of the department and by the applicant or the applicant’s executive supervisor.

(f) The department shall notify the commission prior to the issuance of any memorandums and prepare a report annually regarding any memorandums issued pursuant to this section.

(g) Permission approval shall be required prior to the issuance by the department of any memorandum for a fully protected species listed in subsection (f). Such memorandums shall be subject to conditions established by the commission.

(h) Commission approval shall be required for studies involving the take of scientific purposes involving the following fully protected species:

1. California condor (Gymnogyps califomianus).
2. Southern sea otter (Enhydra lutris nivea).
3. Bighorn sheep (Ovis canadensis).

(g) Permits for the taking of fully protected species that are also declared to be rare or endangered by the commission pursuant to Section 670.5, or federally designated as endangered or threatened by the Secretary of the Interior, shall be subject to conditions of State-Federal Cooperative Agreements relating to these species.

(h) Any permit issued pursuant to these regulations may be cancelled or suspended at any time by the director of the department when, in the judgment of the permittee, acting or having acted contrary to the terms and conditions of subject permit, or if, in his judgment, the safety or welfare of the species authorized to be taken by such permit is or may be jeopardized by the actions of permittee.
(h) Unusual Project Applications. Public or private projects which are unusually extensive and/or protracted, inducting but not limited to projects that (1) involve more than one departmental administrative region, or (2) involve more than 15 streams (excluding timber harvest applications), shall be charged fees under the following provisions:

1. The project sponsor shall submit the appropriate application fee required in the above fee schedule. Should this application fee be insufficient to defer the department's costs, then the department and the project sponsor shall agree on a billing schedule to recover the department's additional project-related costs.

NOTE: Authority cited: Section 1607, Fish and Game Code. Reference: Section 1607, Fish and Game Code.

HISTORY
1. New section filed 7-1-91; operative 7-1-91 pursuant to Government Code section 11346.2(d) (Register 91, No. 40).
2. Amendment of subsections (a)-(f) filed 4-14-92; operative 5-14-92 (Register 92, No. 18).

§ 700. Hunting and Fishing Licenses, Possession and Display of.

(a) Display of Sport Fishing License: Every person, while engaged in taking any fish, amphibian or reptile, shall display their valid sport fishing license by attaching it to their outer clothing at or above the waistline so that it is plainly visible, except when diving as provided in Section 7145 of the Fish and Game Code.

(b) Possession of Hunting License: Every person, while engaged in taking any bird or mammal must have on their person or in their immediate possession a valid hunting license.


HISTORY
1. New section filed 6-24-66 as an emergency; designated effective 7-2-66; Certificate of Compliance included (Register 66, No. 10).
2. Amendment filed 6-4-70; designated effective 7-1-70 (Register 70, No. 23).
3. Amendment of NOTE filed 7-16-81; effective thirtieth day thereafter (Register 81, No. 29).
4. Editorial correction of NOTE filed 9-20-85; effective thirtieth day thereafter (Register 85, No. 5).
5. Amendment of subsection heading, text and NOTE filed 3-3-94; operative 4-4-94 (Register 94, No. 9).
6. Amendment of subsection (a), repealer of subsection (a)(9), and amendment of subsection (c) filed 12-27-96; operative 12-27-96 pursuant to Fish and Game Code sections 202 and 215 (Register 96, No. 52).

§ 706. Hunting and Fishing License, Validation of. Except as provided in subsection 705(b) above, every hunting or sport fishing license to be valid shall contain the information required in section 705 above, and it shall be signed by the licensee and the license shall show the date of issue.


HISTORY
1. New section filed 4-13-73; effective thirtieth day thereafter (Register 73, No. 15).
2. Amendment of NOTE filed 7-16-81; effective thirtieth day thereafter (Register 81, No. 29).
3. Editorial correction of NOTE filed 9-20-85; effective thirtieth day thereafter (Register 85, No. 5).
4. Amendment filed 4-24-90; operative 5-24-90 (Register 90, No. 20).
5. Amendment filed 12-27-96; operative 12-27-96 pursuant to Fish and Game Code sections 202 and 215 (Register 96, No. 52).

§ 707. Licenses, Certificates, Permits and License Tags, Dating of.

Except as provided in subsection 705(b) above, every person who issues any license, certificate, permit or license tag authorized by the Fish and Game Code, shall enter in the space provided on the license, certificate, permit or license tag the date it was issued, and when required by the department shall maintain a record of the date issued in the manner prescribed by the department. Any license agent who issues a permit or license tag shall immediately enter the tag number in the space provided on the appropriate current license.


HISTORY
1. New section filed 5-4-76; effective thirtieth day thereafter (Register 76, No. 19).
2. Amendment of NOTE filed 7-1-78; effective thirtieth day thereafter (Register 81, No. 29).
3. Amendment filed 8-18-82; effective upon filing pursuant to Government Code section 11346.2(d) (Register 82, No. 34).
4. Editorial correction of NOTE filed 9-20-85; effective thirtieth day thereafter (Register 85, No. 38).
5. Amendment filed 4-24-90; operative 5-24-90 (Register 90, No. 20).

§ 708. Big Game License Tag, Application, Distribution and Reporting Procedures.

(a) Deer License Tag Procedures and Requirements

(1) Deer License Tags.

No person shall hunt deer without a valid deer license tag in possession for that particular area as defined in sections 360 and 361. Deer shall be tagged only with a valid deer license tag for the area (as defined in sections 360 and 361) in which the deer is killed. Except as otherwise provided in the Fish and Game Code, no person shall take more than two deer during any license year.

(2) Deer License Tag Application and Distribution Procedures.

(A) Distribution of License Tags:

1. Premium deer hunt tags for X zones, additional hunts, and area-specific archery hunts shall be distributed by drawing, as described in sub-
section 708(g)(1) and (2), unless otherwise authorized. Applicants shall submit their deer tag application to the Department of Fish and Game. License and Revenue Branch, 3211 S Street, Sacramento, California 95816 (or by mail to PO Box 949035, West Sacramento, CA 95798-9035). Applications must be received by the department by 5:00 p.m. on the first business day after June 1. Successful applicants will be selected by drawing within 10 calendar days following the application deadline date. If the drawing is delayed due to circumstances beyond the department's control, the department shall conduct the drawing at the earliest date possible. Successful and unsuccessful applicants will be notified by mail.

2. Except as noted in subsection 708(a)(2)(E) below, deer tags for A, B, C, and D zones and leftover drawing tags shall be issued upon request until each tag quota fills. If, on any given day, the number of applications received for any zone or hunt exceeds the number of available tags, the department may conduct a drawing for that zone or hunt.


(C) Application Procedures:
1. Applicants must be at least 12 years of age and possess a California resident or nonresident hunting license valid for the deer hunting season for which they are applying, except applicants for additional junior deer hunts, who must possess a California junior hunting license.
2. No more than six persons may apply together as a party. To be considered as a party, all applications must be stapled together with the party leader's application on top and mailed in one envelope. All party members' applications must show the same tag choices in the same order of preference, the total number of persons in the party, and the party leader's name and identification number. All party members shall be awarded tags according to the choices listed on the party leader's application. Party applications for premium deer hunts shall not be split to meet the tag quota if the number of party members exceeds the number of available tags. Party applications which exceed the number of available tags shall be bypassed until the quota is reached. Incorrect or incomplete party applications will be rejected.

3. Incomplete, incorrect, or ineligible applications will be rejected.

(D) Application Fee: The department shall require that the specified fee for a deer tag be paid as a prerequisite to obtaining a deer tag application. In addition to the tag fee, the department shall also charge a nonrefundable $2.00 processing fee for each deer tag application.

(E) Application Restrictions:

a. A person may use a one-deer tag application to apply for any premium deer hunt tag (X zone, additional hunt, or area-specific archery hunt) issued by drawing as specified in subsection 708(a)(2)(A) 1., above.

b. A person may use a one-deer tag application to apply for any A, B, C, or D zone tag or archery-only tag issued upon request.

c. A person may use a one-deer tag application to apply for any premium deer hunt tag QC zone, additional hunt, or area-specific archery hunt) remaining on the first business day after July 1. Applications must be submitted to the department's License and Revenue Branch in Sacramento, except applications for area-specific archery hunt A-22, which may be submitted in person to the department's Los Alamitos or San Diego offices.

2. Second-Deer Tag Application:

a. A person may use a second-deer tag application to apply for any A or B zone tag or archery-only tag issued upon request.

b. A person may use a second-deer tag application to apply for any area-specific archery tag remaining on the first business day following July 1. Applications must be submitted to the License and Revenue Branch in Sacramento, except applications for area-specific archery hunt A-22, which may be submitted in person to the department's Los Alamitos or San Diego offices.

c. A person may use a second-deer tag application to apply for any C or D zone tag or additional hunt tag, except an additional junior hunt tag, remaining on the first business day following August 1. Applications may be submitted before that date to the License and Revenue Branch in Sacramento.

d. A person in possession of a valid junior hunting license, who has not used a one-deer tag application to apply for an additional junior hunt, may use a second-deer tag application to apply for an additional junior hunt tag issued by drawing as specified in subsection 708(a)(2)(A), and 708(g)(2)(A). A junior hunter may not submit more than one application for additional junior hunts.

e. No person shall submit more than one one-deer tag application and one second-deer tag application to the department during any one license year. Any person in violation of this subsection may be denied deer tags for the current and following license year.

(F) Deer Tag Exchange Fee: The department shall charge a nonrefundable $6.25 processing fee for exchanging a deer tag for a different zone or hunt.

3. Tagging Requirements:

Immediately upon killing a deer, both portions of the deer license tag must be completely filled out and the date of kill permanently marked on the deer license tag. The deer license tag must be attached to the antlers of an antlered deer or to the ear of any other deer and kept attached during the open season and for 15 days thereafter. Except as otherwise provided, possession of any untagged deer shall be a violation (refer to Fish and Game Code, Section 4336).

4. Tag Validation and Countersigning Requirements, and Transporting for the Purpose of:

Any person legally killing a deer in this state shall have the deer license tag validated and countersigned by a person authorized by the commission as described below in subsection 708(a)(8) before transporting such deer, except for the purpose of taking the deer to the nearest person authorized to countersign the license tag, on the route being followed from the point where the deer was taken (refer to Fish and Game Code, Section 4341).

5. Deer Head Retention Requirements and Production Upon Demand:

Any person taking any deer in this state shall retain in their possession during the open season thereon and for 15 days thereafter, that portion of the head which in adult males normally bears the antlers, and shall produce the designated portion of the head upon the demand of any officer authorized to enforce the provisions of this regulation (refer to Fish and Game Code, Section 4341).

6. Deer Tag Reporting Requirements:

Every person to whom a deer tag is issued shall return the completed report card portion to the department within thirty days of taking a deer.

7. Deer Violations, Tag Forfeiture:

Any person who is convicted of a violation involving deer shall forfeit their current year deer license tags and no new deer license tags may be issued to that person during the then current hunting license year, and that person may not apply for a deer tag for the following license year (refer to Fish and Game Code, Section 4340).

8. Deer and Elk Tags, Persons Authorized to Validate:

The following persons are authorized to validate or countersign deer and elk tags:

(A) State:

1. Fish and Game Commissioners
2. Employees of the Department of Fish and Game
3. Deputy Foresters
4. Assistant Deputy Foresters

5. Forest Rangers
6. Park Rangers—Grades 1, 2, 3, and 4
7. Supervising Plant Quarantine Inspectors
8. Junior, Intermediate, and Senior Plant Quarantine Inspectors
9. Forest Rangers
10. Fire Prevention Officers—Grades 1, 2, 3, and 4
11. Fire Captains
12. Fire Apparatus Engineers

(B) Federal: (FS = U.S. Forest Service, FWS = U.S. Fish & Wildlife Service, BLM = Bureau of Land Management)
1. Range Technicians (BLM)
2. Forest Supervisors (FS)
3. Assistant Forest Supervisors (FS)
4. District Forest Rangers (FS)
5. Foresters (FS, BLM)
6. Range Conservationists (FS, BLM)
7. Forest Engineers (FS, BLM)
8. Forestry Aides (FS)
9. Fire Control Officers or Aides (FS, BLM)
10. Clerks (FS, FWS, BLM) while on duty at their headquarters
11. Game Management Agents (FWS)
12. Wildlife Management Biologists (FS, FWS, BLM)
13. District Managers (BLM)
14. Information Specialists (BLM)
15. Area Managers (BLM)
16. Realty Specialists (BLM)
17. Natural Resource Specialists (BLM)
18. Engineers (BLM)
19. Engineering Technicians (BLM)
20. Recreation Resource Specialists (BLM)
21. Geologists (BLM)
22. Recreation Aides (BLM)
23. All Uniformed Personnel of the National Park Service
24. Commanding officers of any United States military installation or their designated personnel for deer taken on their reservation.
25. Postmasters
26. Post Office Station or Branch Manager for deer brought to their post office.

(C) Miscellaneous:
1. County firemen at and above the class of foreman for deer brought into their station.
2. Judges or Justices of all state and United States courts.
3. Notaries Public
4. Peace Officers
5. Nonsalaried police officers or deputy sheriffs while on scheduled duty in a city or county of appointment for deer brought to a police station or sheriffs office
6. Officers authorized to administer oaths
7. Owners, corporate officers, managers or operators of lockers or cold storage plants for deer brought to their place of business.

(D) No person may validate or countersign their own tag.

(b) Distribution of Bighorn Sheep License Tags:

(1) Fund-raising Nelson bighorn ram license tags: Two fund-raising license tags for the taking of mature Nelson bighorn rams shall be sold for the purpose of raising funds to manage bighorn sheep. The department may designate a nonprofit organization to sell this fund-raising tag. Any resident or nonresident is eligible to buy the tag. The purchaser of a fund-raising license tag shall complete a required hunter orientation program conducted by the department and meet the hunter education requirements for a hunting license. The fund-raising license tags are defined as follows:
   (A) Open-zone fund-raising license tags: These fund-raising license tags are valid in any of the areas described in subsection 362(a).
   (B) General Nelson bighorn ram license tags: The application form (2002 NELSON BIGHORN SHEEP DRAWING APPLICATION, LBR 1362, Rev. 4/2002, incorporated by reference herein) shall be made available to the public at license agents and regular offices of the department. Applicants must be California residents or nonresidents, at least 16 years of age, possessing a California hunting license valid during the bighorn ram season for which they are applying, and must not have been previously issued a bighorn license tag in California. Applicants must apply for only one designated zone. No person shall submit more than one application. Applicants shall submit the application with a nonrefundable processing fee of $6.75 to the Department of Fish and Game, License and Revenue Branch, 3211 S Street, Sacramento, CA 95816. (Or by mail to PO Box 989041, West Sacramento, CA 95798-9041). Applications must be received before 5:00 p.m. on the first business day after June 1. Incomplete applications and applications submitted without the appropriate processing fee will not be included in the drawing. Successful applicants and a list of alternates for each zone shall be determined by drawing within 10 calendar days following the application deadline date. If the drawing is delayed due to circumstances beyond the department’s control, the department shall conduct the drawing at the earliest date possible. No more than one nonresident shall be selected to receive a general license tag. Unsuccessful applicants will not be notified. Successful applicants will be mailed notification as soon as practical. Upon receipt of the notification, the applicant shall submit the appropriate tag fee, either $270.25 for a resident or $550.00 for a nonresident to the Department of Fish and Game, License and Revenue Branch, 3211 S Street Sacramento, CA 95816. The tag fee shall be received by the department by 5:00 p.m. on the Monday following the second Saturday in July. Should the quota for each zone remain unfilled after that date, the alternate lists shall be used. Successful applicants shall be issued tags only after successfully completing the required hunter orientation program conducted by the department.

(2) General Nelson bighorn ram license tags: The application form (2002 NELSON BIGHORN SHEEP DRAWING APPLICATION, LBR 1362, Rev. 4/2002, incorporated by reference herein) shall be made available to the public at license agents and regular offices of the department. Applicants must be California residents or nonresidents, at least 16 years of age, possessing a California hunting license valid during the bighorn ram season for which they are applying, and must not have been previously issued a bighorn license tag in California. Applicants must apply for only one designated zone. No person shall submit more than one application. Applicants shall submit the application with a nonrefundable processing fee of $6.75 to the Department of Fish and Game, License and Revenue Branch, 3211 S Street, Sacramento, CA 95816. (Or by mail to PO Box 989041, West Sacramento, CA 95798-9041). Applications must be received before 5:00 p.m. on the first business day after June 1. Incomplete applications and applications submitted without the appropriate processing fee will not be included in the drawing. Successful applicants and a list of alternates for each zone shall be determined by drawing within 10 calendar days following the application deadline date. If the drawing is delayed due to circumstances beyond the department’s control, the department shall conduct the drawing at the earliest date possible. No more than one nonresident shall be selected to receive a general license tag. Unsuccessful applicants will not be notified. Successful applicants will be mailed notification as soon as practical. Upon receipt of the notification, the applicant shall submit the appropriate tag fee, either $270.25 for a resident or $550.00 for a nonresident to the Department of Fish and Game, License and Revenue Branch, 3211 S Street Sacramento, CA 95816. The tag fee shall be received by the department by 5:00 p.m. on the Monday following the second Saturday in July. Should the quota for each zone remain unfilled after that date, the alternate lists shall be used. Successful applicants shall be issued tags only after successfully completing the required hunter orientation program conducted by the department.

(3) Tagholder Responsibilities:
   (A) Only persons possessing valid Nelson bighorn sheep license tags are entitled to hunt bighorn sheep. Tags shall not be transferable and are valid only in the zone or zones specified.
   (B) Individuals awarded a fund-raising license tag and all successful applicants for general license tags shall attend and successfully complete a mandatory hunter orientation program Licensed guides employed by successful applicants and the fund-raising license tag buyer shall accompany their clients to this orientation program.
   (C) All successful bighorn sheep tagholders shall have their tags validated. All tags must be returned to the department within 10 days after the close of the season, even though the tagholder may not have killed a Nelson bighorn ram.
   (D) Tags must be completed and attached to the carcass of a bighorn ram immediately after the animal is killed. All successful bighorn sheep tagholders shall have their tags validated.
   (E) All tagholders will be notified by mail as to whether they will be required to report to the department before hunting and upon completion of hunting. The notification shall contain procedures for reporting, including appropriate methods of contacting the department.

(F) The tagholder shall surrender his tag to an employee of the department for any or all of the following reasons:
1. Any act on the part of the tagholder which violates any of the provisions of the Fish and Game Code, or any regulations of the commission.
2. Any act on the part of the tagholder which endangers the person or property of others. The decision of the department in such respects shall be final and binding upon the tagholder.

(c) Distribution of Pronghorn Antelope License Tags:

(1) The pronghorn antelope license tags shall be issued by drawing, as described in subsection 708(g)(5)(A) and (B). Application forms (2002 RESIDENT ANTELOPE DRAWING APPLICATION, LRB 1363, Rev. 4/2002, incorporated by reference herein) shall be made available to the public at license agents and regular department offices. Each applicant must be a California resident at least 12 years of age, and possess a California hunting license valid during the pronghorn antelope season for which they are applying. Applicants for buck pronghorn antelope license tags must not have been issued a buck pronghorn antelope license.
tag during the previous ten years. Applicants may apply for doe and juvenile hunt license tags every year. Applicants for the junior pronghorn antelope hunts must be California residents possessing a junior hunting license valid during the pronghorn antelope season for which they are applying. No person shall submit more than one application for a pronghorn antelope license tag. No more than two persons shall apply together as a party. To be considered as a party, both persons must apply on the same application for the same tag choice. Incomplete applications and applications submitted without the appropriate processing fee will not be included in the drawing.

(7) Applicants shall submit the application with a nonrefundable processing fee of $6.75 for Single and $13.50 for Party to the Department of Fish and Game, License and Revenue Branch, 3211 S Street, Sacramento, CA 95816 (Or by mail to P.O. Box 989041, West Sacramento, CA 95798-9041). Applications must be received before 5:00 p.m. on the first business day after June 1. Successful applicants and a list of alternates for each hunt shall be determined by drawing within 10 calendar days following the application deadline date. If the drawing is delayed due to circumstances beyond the department's control, the department shall conduct the drawing at the earliest date possible. Except as provided in subsection 708(g)(5)(A)(5), party applications drawn for the last tag available for a hunt will be split and the party leader (first person listed) as indicated on the application form shall be awarded the pronghorn antelope license tag. The party member shall become the first alternate for that hunt. Unsuccessful applicants will not be notified. Successful applicants and alternates will be mailed notification as soon as practical. Upon receipt of the notification the applicant or alternate shall submit an $95.75 tag fee to the Department of Fish and Game, License and Revenue Branch, 3211 S Street, Sacramento, CA 95816. The tag fee shall be received by the department by 5:00 p.m. on the Monday following the second Saturday in July. Should the quota for each zone remain unfilled after that date, the alternate list shall be used. In the event only one pronghorn antelope license tag is available to an alternate, party applications will be split and the alternate tag shall be awarded to the party leader as indicated on the application form. Undistributed tags will be issued after the drawing. Any tags unclaimed by successful applicants after that date shall be awarded to paid alternates for that zone, on an individual basis, in the order drawn. Any remaining tags may be issued to paid alternates for other zones.

(3) Fund-raising License Tags: Fund-raising license tags for the taking of buck pronghorn antelope shall be offered for sale to raise funds for the management of pronghorn antelope. Any resident or nonresident is eligible to buy one of the fund-raising license tags. The sale price of a fund-raising license tag includes the fee for processing and issuing a hunting license. The purchaser shall be issued the fund-raising license tag only after meeting the hunter education requirements for a hunting license.

(4) Tagholder Responsibilities:

(A) Only persons possessing valid pronghorn antelope license tags are entitled to hunt pronghorn antelope during these hunts. Tags shall not be transferable and are valid only in the area, season, and period specified on the tag.

(B) All tagholders must return the report card portion of their license tag to the department within one week after the close of the pronghorn antelope season, even though the tagholder may not have killed a pronghorn antelope.

(C) The tagholder shall surrender his license tag to an employee of the Department of Fish and Game for any of the following reasons:

1. Any act on the part of the tagholder which violates any of the provisions of the Fish and Game Code, or any regulations of this commission.
2. Any act on the part of the tagholder which endangers the person or property of others. The decision of the Department of Fish and Game in such respects shall be final and binding upon the tagholder.

(d) Distribution of Elk License Tags:

(1) Three fund-raising license tags for the taking of elk bulls shall be offered for sale to raise funds for the management of elk. The department may designate a nonprofit organization or organizations to sell the fund-raising tags. Any resident or nonresident is eligible to buy one of the license tags. The purchase of fund-raising tags shall complete required hunter orientation programs conducted by the department and meet the hunter safety requirements for a hunting license.

(2) Application forms for elk tags (2002 RESIDENT ELK DRAWING APPLICATION, LRB 1364, Rev. 4/2002). Incorporated by reference herein) shall be made available to the public at license agents and regular department offices. Each applicant must be a California resident at least 12 years of age and possess a California hunting license valid during the elk season for which he/she is applying. No person shall submit more than one application for an elk license tag. No more than two persons shall apply together as a party. To be considered as a party, both persons must apply on the same application for the same tag choice. Incomplete applications and applications submitted without the appropriate processing fee will not be included in the drawing.

(3) The elk hunting license tags shall be issued by drawing, as described in subsection 708(g)(4)(A) and (B). Applicants shall submit the application with a nonrefundable $6.75 for Single and $13.50 for Party processing fee to the Department of Fish and Game, License and Revenue Branch, 3211 S Street, Sacramento, CA 95816 (Or by mail to P.O. Box 989041, West Sacramento, CA 95798-9041). Applications must be received before 5:00 p.m. on the first business day after June 1. Except as provided in subsection 708(g)(4)(A), party applications drawn for the last tag available for a hunt will be split and the party leader (first person listed) as indicated on the application form shall be awarded the elk tag. The party member shall become the first alternate for that hunt. Successful applicants and a list of alternates for each hunt will be determined by drawing within 10 calendar days following the application deadline date. If the drawing is delayed due to circumstances beyond the department's control, the department shall conduct the drawing at the earliest date possible. Unsuccessful applicants will not be notified. Successful applicants and alternates will be mailed notification as soon as practical. Upon receipt of the notification, the applicant or alternate shall send a $286.75 tag fee to the Department of Fish and Game, License and Revenue Branch, 3211 S Street, Sacramento, CA 95816. The tag fee shall be received by the department by 5:00 p.m. on the Monday following the second Saturday in July. Should the quota for each zone remain unfilled after that date, the alternate list shall be used. In the event only one pronghorn antelope license tag is available to an alternate, party applications will be split and the alternate tag shall be awarded to the party leader as indicated on the application form. Undistributed tags will be issued after the drawing. Any tags unclaimed by successful applicants after that date shall be awarded to paid alternates for that zone, on an individual basis, in the order drawn. Any remaining tags may be issued to paid alternates for other zones.

(4) Tagholder Responsibilities:

(A) All tagholders must return their license tags to the Department of Fish and Game within one week after the close of the elk season, even though the tagholder may not have killed an elk.

(B) License tags must be attached to the antler of an antlered elk, or to the ear of an antlerless elk immediately after killing.

(C) Persons authorized to validate or countersign elk tags are listed in Section 708(a)(8). Elk tags must be countersigned before transporting such elk, except for the purpose of taking it to the nearest person authorized to countersign the license tag on the route being followed from the point where the elk is taken.

(D) Only persons possessing valid elk license tags are entitled to take elk. Tags are not transferrable and are valid only for the area and period specified.

(E) The tagholder shall surrender his tag to an employee of the Department of Fish and Game for any or all of the following reasons:
1. Any act on the part of the tagholder which violates any of the provisions of the Fish and Game Code, or any regulations of the Commission made pursuant thereto.
2. Any act on the part of the tagholder which endangers the person or property of others. The decision of the Department of Fish and Game shall be final.

(f) Elk may be taken on Santa Rosa Island pursuant to a permit issued by the department. For methods of take, see sections 353 and 354.

(e) Bear License Tags:
(1) Application for Bear License Tags:
(A) With the exception of permits and tags issued pursuant to section 4181 of the Fish and Game Code, all bear license tag applications shall be submitted on forms provided by the department.
(B) The department may require that the specified fee provided for in section 4751 of the Fish and Game Code for such bear license tags be paid as a prerequisite to obtaining a bear license tag application.
(C) The department shall charge a nonrefundable $2.00 processing fee for each bear license application.
(D) Only one bear license tag application may be submitted to the department during any one license year. Any person who submits more than one bear license tag application may be denied bear license tags for the current license year.

(3) Use of Guides: Any holder of a bear license tag who utilizes the services of a guide or guides shall verify that the guide is in possession of a valid guide's license and shall place the guide's license number on the bear license tag in the space provided.
(4) Use of Dogs: Any holder of a bear license tag who utilizes dogs to take bear shall so indicate on his bear license tag in the space provided.
(5) Validation of Bear Tags: Only Department of Fish and Game employees may validate bear tags. This provision supersedes section 4755 of the Fish and Game Code. Bear tags must be countersigned before transporring the bear except for the purpose of taking it to the nearest person authorized to countersign the license tag, on the route being followed from the point where the bear is taken.

(6) Return of Bear License Tags:
(A) Every person who takes a bear shall immediately return the report card portion of the bear license tag, after having the tag countersigned as required in (e) above. The tag may be presented to a department office/officer or returned through the United States Mail.
(B) Every person who is unsuccessful in returning bear shall return the report card portion of the bear license tags by February 1 of the current license year. The tag may be presented to a department office/officer or returned through the United States Mail.

(f) Application For and Use of Wild Pig License Tags:
(1) Any person, 12 years of age or older, who possesses a valid hunting license may procure wild pig license tags as specified in Section 4654 of the Fish and Game Code.
(2) Wild pig license tags shall be sold to residents in packets of five. Nonresident wild pig license tags will be sold individually.
(3) Wild pig license tags are valid only during that portion of the current hunting license year in which wild pigs may be legally harvested as provided in subsection 368(a).
(4) Any person hunting wild pigs shall carry a wild pig license tag while hunting wild pigs, and upon the killing of any wild pig shall immediately fill out both parts of the tag, clearly mark the date of the kill and attach the tag to the carcass of the wild pig. The report card portion shall be immediately returned to the department.

(g) Big Game Drawing System
(1) General Conditions

(A) Except as otherwise provided, the department shall award license tags for premium deer (X zones, additional hunts, and Aerea-specific archery hunts), bighorn sheep, elk and pronghorn antelope hunts, as described in sections 360(b) and (c), 361, 362, 364 and 363, using a Modified-Preference Point drawing system.
(B) Except as otherwise provided, the Modified-Preference Point drawing system shall award proportions of hunt tag quotas, as specified for each species, using the following drawing methods:
1. Preference Point Drawings. Tags are awarded based on the following order of priority: an applicant's hunt choice (first choice only for deer), accumulated point totals by species (highest to lowest), and computer-generated random number (lowest to highest).
2. Draw-By-Choice Drawings. Tags are awarded according to an applicant's hunt choice and computer-generated random number (lowest to highest), without consideration of accumulated points.
(C) Except as otherwise provided, unsuccessful in receiving a tag for premium deer (based on first choice selection), bighorn sheep, elk or pronghorn antelope hunts shall earn one (1) preference point for use in future Big Game Drawings.
(D) To earn and accumulate a point for any species, a person must comply with all application requirements for that species as specified in subsections 708(a), (b), (c) and (d), including the following conditions:
1. Applicants must be at least 12 years of age at the time of application (16 years of age for bighorn sheep applications).
2. Applicants must possess a California hunting license valid for the hunting season requested (applicants for junior deer hunts must possess a junior hunting license). Applicants must provide evidence of such license at the time of application.
3. Applicants for elk and pronghorn antelope hunts must be California residents.
4. Applications for bighorn sheep, pronghorn antelope and elk hunts must include the appropriate nonrefundable processing fees.
5. Applications must be received by the department's License and Revenue Branch by 5:00 p.m. on the first business day after June 1.
6. Except for junior deer hunt applicants, applicants shall not submit more than one drawing application for each species during the same license year.
(E) No applicant shall earn more than one (1) preference point per species, per drawing, for use in future drawings. Preference points are accumulated by species and shall not be transferred to another species or another person. Preference points are not zone or hunt specific.

(F) Except as otherwise provided, successful applicants receiving tags for their first choice premium deer, bighorn sheep, elk or pronghorn antelope hunts shall lose all preference points for that species.

(G) The department shall award license tags for premium deer (X zones, additional hunts, and Aerea-specific archery hunts), bighorn sheep, elk and pronghorn antelope hunts, as described in sections 360(b) and (c), 361, 362, 364 and 363, using a Modified-Preference Point drawing system.

(H) Except as otherwise provided, successful applicants receiving tags for their first choice premium deer, bighorn sheep, elk or pronghorn antelope hunts shall lose all preference points for that species.

(I) For party applications, the department shall use the average preference point value of all party members (total preference points for the party divided by number of party members) as the basis for consideration in the drawing for that species. Point averages shall not be rounded.

(J) Except as otherwise provided, successful applicants receiving tags for their first choice premium deer, bighorn sheep, elk or pronghorn antelope hunts shall lose all preference points for that species.

(K) For party applications, the department shall use the average preference point value of all party members (total preference points for the party divided by number of party members) as the basis for consideration in the drawing for that species. Point averages shall not be rounded.

(L) Except as otherwise provided, successful applicants receiving tags for their first choice premium deer, bighorn sheep, elk or pronghorn antelope hunts shall lose all preference points for that species.

(M) Except as otherwise provided, successful applicants receiving tags for their first choice premium deer, bighorn sheep, elk or pronghorn antelope hunts shall lose all preference points for that species.

(N) Except as otherwise provided, successful applicants receiving tags for their first choice premium deer, bighorn sheep, elk or pronghorn antelope hunts shall lose all preference points for that species.

(O) Except as otherwise provided, successful applicants receiving tags for their first choice premium deer, bighorn sheep, elk or pronghorn antelope hunts shall lose all preference points for that species.

(P) Except as otherwise provided, successful applicants receiving tags for their first choice premium deer, bighorn sheep, elk or pronghorn antelope hunts shall lose all preference points for that species.
(J) Persons not applying for premium deer, bighorn sheep, elk, or pronghorn antelope hunts through the department's Big Game Drawings for five (5) consecutive years shall have their preference points for that species reduced to zero (0). For the purposes of this subsection, persons whose applications are disqualified from drawing shall be considered the same as persons not applying. Applying for preference points as described in (H) above, will keep an applicant's file active.

(2) Premium Deer Hunts
   (A) Except for junior deer hunt applicants, as specified in subsection 708(a)(2)(E), persons must use a one-deer tag application to apply for premium deer hunts through the department's Big Game Drawing.
   (B) License tags for premium deer hunts (except junior deer hunts) shall be awarded based on the following:
      1. Ninety percent (90%) of the individual zone or hunt tag quota shall be awarded using a Preference Point drawing. Tag quota splits resulting in decimal fractions of a tag shall be rounded to the next higher whole number.
      2. Ten percent (10%) of the individual zone or hunt tag quota shall be awarded using a Draw-By-Choice drawing. Tag quota splits resulting in decimal fractions of a tag shall be rounded to the next lower whole number.
      3. For zones or hunts with quotas less than ten (10) tags, one (1) tag shall be awarded using a Draw-By-Choice drawing. Remaining tags shall be awarded using a Preference Point drawing.
   (C) License tags for junior deer hunts (J Hunts) as described in subsection 360(c) shall be awarded based on the following:
      1. Fifty percent (50%) of the hunt tag quota shall be awarded through a Preference Point drawing. Tag quota splits resulting in decimal fractions of a tag shall be rounded to the nearest whole number.
      2. Fifty percent (50%) of the hunt tag quota shall be awarded through a Draw-By-Choice drawing. Tag quota splits resulting in decimal fractions of a tag shall be rounded to the nearest lower whole number.
      3. A junior hunter applying for premium deer hunts (X zones, area-specific archery hunts, and additional hunts) on a one-deer tag application and a second-deer tag application shall:
         1. Receive a point only if he/she is unsuccessful in the big game drawing with his/her first choice on either application.
         2. Lose all preference points for deer if he/she receives his/her first choice application.
   (3) Bighorn Sheep Hunts
    (A) Successful bighorn sheep tag applicants shall be determined as follows, based on tag quotas for each hunt:
      1. For quotas of one, the tag shall be awarded using a Draw-By-Choice drawing.
      2. For quotas of two, one tag shall be awarded using a Preference Point drawing, and one tag shall be awarded using a Draw-By-Choice drawing.
      3. For quotas of three, two tags shall be awarded using a Preference Point drawing, and one tag shall be awarded using a Draw-By-Choice drawing.
      4. For quotas of four or more, seventy-five percent (75%) of the quota shall be awarded using a Preference Point drawing. Any resulting fractional tag shall be rounded to the next higher whole number. The remaining portion of the quota shall be awarded using a Draw-By-Choice drawing.
    (B) Alternates shall be selected for each hunt using a Preference Point drawing.
   (4) Elk Hunts
    (A) Successful elk tag applicants shall be determined as follows, based on tag quotas for each hunt or hunt period:
      1. For quotas of one, the tag shall be awarded using a Draw-By-Choice drawing.
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Comment by the public and other public agencies shall be provided as required by Government Code section 11346.8.

NOTE: Authority cited: Section 702, Fish and Game Code. Reference: Section 21080.5(d)(2)(iii) and (iv), Public Resources Code.

HISTORY
1. New section Bled 8-27-98; operative 8-27-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 35).

§ 777.B.  Evaluation and Adoption of Proposed Regulations.

(a) When preparing the Initial Statement of Reasons, the Department shall evaluate proposed regulations for consistency with the Department's enabling legislation. The Department's evaluation shall be set forth in writing in the Initial Statement of Reasons.

(b) When evaluating proposed regulations, the Department shall utilize an interdisciplinary approach that will ensure the integrated use of the natural and social sciences in decision making, consistent with the environmental protection purposes of the Department's enabling statute. The evaluation shall address both short-term and long-term effects on the environment, and shall also address growth-inducing effects and any potential cumulative effects.

(c) Any proposed regulations for which significant adverse environmental effects have been identified during the review process shall not be approved or adopted as proposed if there are feasible mitigation measures or feasible alternatives available which would avoid or substantially lessen any significant adverse effect which the proposed regulations may have on the environment in accordance with Public Resources Code section 21081.

(d) If the analysis identifies significant adverse environmental effects for which feasible mitigation measures are not available, it shall also include a statement describing any specific environmental, economic, legal, social, technological, or other benefits which might justify the significant environmental effects of the proposed regulations.

(e) In addition to meeting the requirements of Government Code section 11346.9(a)(3), if comments are received from other public agencies and members of the public during the evaluation process which raise significant environmental points, the Department shall summarize and respond to such comments in writing prior to taking final action on the proposed regulations and such written responses shall be included in the record of the rulemaking proceeding.

NOTE: Authority cited: Section 702, Fish and Game Code. Reference: Sections 21080.5(d)(2)(i), (ii) and (iv), and 21081, Public Resources Code.

HISTORY
1. New section Bled 8—27-98; operative 8-27-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 35).


(a) A notice of the final decision by the Department which indicates whether the proposed regulations will, or will not have a significant effect on the environment shall be filed with the Secretary of the Resources Agency. The notice of the final decision shall be available for public inspection, and a list of the notices will be posted on a weekly basis in the Office of the Resources Agency, and will remain posted for a period of thirty (30) days.


HISTORY
1. New section filed 8-27-98; operative 8-27-98 pursuant to Government Code section 11343.4(d) (Register 98, No. 35).

Article 3.  Fish and Game Review Procedures for EIRs and Negative Declarations

§ 778.  General.

The nature and extent of Fish and Game’s review of EIRs and Negative Declarations will be determined by the following conditions:

(a) Fish and Game has legal jurisdiction with respect to a project as it affects natural resources which are held in trust for the people of the State of California.

NOTE: Authority cited: Section 21080.5, Public Resources Code; Section 15050 of the State EIR Guidelines. Reference: Section 21080.5, Public Resources Code; Section 15050 of the State EIR Guidelines.

§ 779.5.  Review of Projects Affecting Natural Resources Held in Public Trust—Early Consultation.

Under conditions specified in Section 21080.3 of CEQA, a lead agency shall consult with Fish and Game prior to the decision of whether an EIR or Negative Declaration is required. Comments shall be provided by the responsible regional unit.

Section 21080.4 of CEQA requires lead agencies to send a Notice of Determination to Fish and Game if an EIR is required. Upon receipt of such notice ESB personnel shall send the Notice to the responsible regional unit. This unit shall specify the scope and content of environmental information germane to Fish and Game statutory responsibilities and identify specific concerns with the project. The above information shall be provided in writing to ESB for review within 40 days of the date on the Notice of Determination. ESB shall obtain appropriate signatures and forward Fish and Game comments to the Resources Agency within 45 days of the date on the Notice of Determination.

In order for the environmental review process of a project to be timely and complete, the responsible regional unit of Fish and Game may request one or more meetings between representatives of agencies involved in the project. In addition, the responsible unit shall attend any such meeting requested by the lead agency or any other agency involved in the project. Such meetings shall be convened as soon as possible, but no later than 30 days, after they have been requested.

NOTE: Authority cited: Section 21080.5, Public Resources Code; Section 15050 of the State EIR Guidelines. Reference: Section 21080.5, Public Resources Code; Section 15050 of the State EIR Guidelines.

§ 780.  Review of Draft EIRs and Negative Declarations.

Fish and Game in reviewing environmental documents, shall focus on the sufficiency of the EIR in accordance with Section 15161(c) of the State EIR Guidelines. Comments should focus on any shortcomings in the EIR. The appropriateness of using a Negative Declaration, or additional alternatives or mitigation measures which the document should include. Comments shall be provided by the regional unit to ESB for review. If the comments are sufficient, appropriate signatures shall be obtained, and the comments forwarded to the Resources Agency for incorporation into other Agency comments, if any. If the comments are not sufficient regional unit personnel and ESB personnel shall coordinate to complete the comments before obtaining necessary signatures.

NOTE: Authority cited: Section 21080.5, Public Resources Code; Section 15050 of the State EIR Guidelines. Reference: Section 21080.5, Public Resources Code; Section 15050 of the State EIR Guidelines.

§ 780.5.  Review of Final EIRs and Negative Declarations.

The same procedure shall be used to review final documents as is used to review draft documents.

NOTE: Authority cited: Section 21080.5, Public Resources Code; Section 15050 of the State EIR Guidelines. Reference: Section 21080.5, Public Resources Code; Section 15050 of the State EIR Guidelines.

§ 781.  Designation of Contact Person.

Under the conditions and procedures specified above, Fish and Game shall supply with its comments the name of a Fish and Game contact person in accordance with Section 15161(d) of the State EIR Guidelines.

NOTE: Authority cited: Section 21080.5, Public Resources Code; Section 15050 of the State EIR Guidelines. Reference: Section 21080.5, Public Resources Code; Section 15050 of the State EIR Guidelines.

§ 781.5.  Regulation Procedure.

(a) When the department submits a recommendation to the commission with regard to adopting regulations which may have a significant effect on the environment or it is anticipated that a substantial body of opinion will reasonably consider the environmental effect to be adverse, the recommendation shall be presented in written form containing:

(1) The proposal.


(2) Reasonable alternatives to the proposal, and
(3) Mitigation measures to minimize any significant adverse environmental impacts of the proposal.
(b) Recommendations from the department shall consider the relevant portions of policies declared by the state legislature and the commission dealing with the management of fish and wildlife resources.
(c) Recommendations received from any person other than the department shall be considered as a comment on, or counter proposal to, the recommendations received from the department, and a written response shall be prepared by the department.
(d) The commission will evaluate proposals according to how well the recommendations would achieve the purposes and policies of fish and wildlife management described in the Fish and Game Code, and in Division 1, Title 14, California Administrative Code.
(e) After receipt of the recommendation from the department, the commission shall consult with all other public agencies having jurisdiction by law with respect to the activities involved in the recommendation.
(f) Notice of the filing of the recommendation by the department shall be made to the public following the statutory requirements of the Fish and Game Code. The notice shall be provided early enough that people will have at least 30 days, or until the next meeting, whichever occurs first, to respond to the recommendation before the commission takes its action. Notice shall also be mailed to any person who requests in writing such notification.
(g) The commission will not adopt regulations as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen any significant adverse impact which the activity may have on the environment, unless specific economic, social or other conditions make infeasible such project alternatives or such mitigation measures.
(h) The final action on the adopting of regulations shall include the written response of the commission to significant environmental points raised during the evaluation process by other public agencies and members of the public. Responses to comments received prior to the final public meeting when the commission must take its action will be prepared in writing prior to the meeting. Responses to comments received at the final meeting may be made orally by the commission during the meeting. Such oral responses will be included in the official written minutes of the meeting.
(i) Notice of the adoption of a regulation adopted pursuant to Section 21080.5, Public Resources Code, shall be filed with the Secretary for Resources. The notice shall be available for public inspection and shall remain posted for a period of 30 days.


HISTORY

1. New section titled as follows:
   14 1. New Chapter 5 (Articles 1-5, Sections 782-786.7) filed 11-9-77; effective thirtieth day thereafter. Approved by Fair Political Practices Commission 10-4-77 (Register 77, No. 46).
   2. Repealer of Chapter 5 (Article 1-4, Sections 782-786.7) and new Chapter 5 (Section 782 and Appendix) filed 2-26-81; effective thirtieth day thereafter. Approved by Fair Political Practices Commission 12-1-80 (Register 81, No. 9).
   3. Amendment of Appendix filed 1-20-87; effective thirtieth day thereafter. Approved by Fair Political Practices Commission 10-14-86 (Register 87, No. 4).

Chapter 6. Regulations for Implementation of the California Endangered Species Act

Article 1. Take Prohibition; Permits for Incidental Take of Endangered Species, Threatened Species and Candidate Species

§ 783.0. Purpose and Scope of Regulations.

This article implements Sections 2080 and 2081 of the Fish and Game Code. This article does not affect the Department’s authority to authorize take pursuant to any other provision of this division.

NOTE: Authority cited: Sections 702 and 2081(d), Fish and Game Code. Reference: Sections 2080 and 2081, Fish and Game Code.

1. New chapter 5, article 1 (sections 783.0-783.8) and section filed 12-30-98; operative 12-30-98 pursuant to Government Code section 11343.4(d) (Register 99, No. 1).

5783.1. Prohibitions;

(a) No person shall import into this State, export out of this State or take, possess, purchase, or sell within this State, any endangered species, threatened species, or part or product thereof, or attempt any of those acts, except as otherwise provided in the California Endangered Species Act, Fish and Game Code Section 2050, et seq. ("CESA"), the Native Plant Protection Act, the Natural Community Conservation Planning Act, the California Desert Native Plants Act, or as authorized under this article in an incidental take permit.

Resister99, No. 1; 1-1-99
Appendix 2 -
List of Individuals and Organizations Receiving the 2003 Draft Environmental Document Regarding Pronghorn Antelope
1. Mr. G. Lynn Sprague, U.S. Forest Service, Vallejo, California
2. Mr. Wayne White, U.S. Fish and Wildlife Service, Sacramento, California
3. Mr. Mike Pool, Bureau of Land Management, Sacramento, California
4. Mr. John Reynolds, National Park Service, San Francisco, California
5. Director, California Department of Parks and Recreation, Sacramento, California
7. Ms. Lois Kliebe, Sportsmen’s Council of Northern California, Redding, California
9. Mr. Gerald Upholt, California Rifle and Pistol Association, Sacramento, California
10. Mr. Keith Ringgenberg, Outdoor Sportsmen’s Coalition, Fresno, California
11. Ms. Camilla Fox, Animal Protection Institute, Sacramento, California
12. Mr. Wayne Pacelle, Humane Society of the United States, Washington, DC
13. Mr. Patrick L. Smith, United State Department of Agriculture, Sacramento, California
14. Ms. Shannon Hebert, United State Department of Agriculture, Portland, Oregon
15. Mr. Alan Sanders, Sierra Club, Los Padres Chapter, Hueneme, California
16. Dr. J. Rod McGinnis, California Bowmen Hunter, Sacramento, California
17. Mr. Michael Dunbar, US Fish and wildlife Service, Lakeview, Oregon
18. Mr. Jim Yoakum, Verdi, Nevada
19. Mr. Dave Carter, Dixon, California
20. Modoc County Fish and Game Commission, Alturas, California