

**Nevada Department of Wildlife**

**BLACK BEAR MANAGEMENT PLAN**

**2012**



This document is the result of studies undertaken with Federal Aid in Fish and Wildlife Restoration funds under Pittman-Robertson Projects.

**State of Nevada**  
Brian Sandoval, Governor

**Department of Wildlife**  
Kenneth Mayer, Director

**Game Division**  
Larry Gilbertson, Chief

## **EXECUTIVE SUMMARY**

This management plan was prepared to provide wildlife managers of the Nevada Department of Wildlife (NDOW) policy direction for the management of black bears in the state of Nevada. It provides a framework of goals, strategies and objectives that personnel can apply to manage black bears based on adaptive management processes. This is not a stand-alone document but serves as a companion document to the Nevada Department of Wildlife's biological bulletin No. 15 entitled *Nevada's Black Bear – Ecology and Conservation of a Charismatic Omnivore*, the Department's Policy & Procedure document titled *Black Bear Conflict Management* and a field manual for employees responding to bear conflicts, *Managing Bear-Human Conflicts*. These documents include additional information on black bear ecology, life history, population demographics and procedural guidelines for NDOW employees to follow when handling bear/human conflict issues.

## **DEPARTMENT PHILOSOPHY**

The primary objective of the NDOW is to conserve, manage and protect the state's black bear population in a healthy and productive condition for the enjoyment and use of all residents of the state. The black bear in Nevada is a valuable wildlife resource, and as such it will be managed for its intrinsic values and multiple uses such as recreational, educational and aesthetic purposes, including hunting, research and wildlife viewing.

Managing black bear in a multiple use context provides a broad public value and minimizes threats to public safety and damage to personal property, while maintaining a viable and sustainable bear population. As an "indicator species," it will be managed to fulfill its ecological role as a large carnivore in its ecosystem.

The Department will employ adaptive management utilizing a range of common harvest criteria to manage black bears through the use of hunting. These population criteria include, but are not limited to: (1) percent females in the sport harvest; (2) percent adult females in the female portion of the harvest, and; (3) median age of harvested males.

The Department will encourage research intended to gather scientific data and continue with cooperative research projects to clearly understand the ecological role of bears in Nevada. Information gained from this research will be analyzed and used as appropriate to develop management strategies for both consumptive and non-consumptive use by the public.

The NDOW will use the most appropriate control measures to manage bear-human conflicts, utilizing non-lethal techniques and aversion conditioning, combined with on-site releases when possible. Translocation of nuisance bears will remain a management option when deemed appropriate (not a public safety threat).

Black bears are omnivorous and often seek out the most readily available food resources, including human trash, pet food and fruit trees. This behavior frequently brings them into close proximity to humans. Efforts will be made through public education to reduce the availability of human caused attractants. Public education about the black bear in Nevada will be emphasized. The Department of Wildlife will assume a leadership role in furthering the public's understanding of this species.

Black bears are also opportunistic predators and may occasionally kill domestic livestock, primarily sheep and goats. The Department of Wildlife will attempt to control or prevent damage to livestock and other personal property caused by black bears wherever possible. Although efforts will be made to reduce the economic impact of this predation, it is recognized that some loss will occur.

Black bears are intelligent, curious and very powerful animals. They are also very tolerant of humans, and can adapt to human presence more so than many other species. Yet, at times, black bears can pose a legitimate threat to human safety. When considered by the NDOW to pose a legitimate threat to human health and safety, they will be humanely killed. The Department will facilitate the necessary control measures in the most expedient manner.

Black bears are classified as game mammals in the State of Nevada and the NDOW will aggressively pursue prosecution of those individuals who unlawfully kill a black bear.

## GOALS, OBJECTIVES AND STRATEGIES

### A. GOAL: WELL-DISTRIBUTED BLACK BEAR POPULATIONS WITHIN SUITABLE HABITAT THROUGHOUT THEIR NATIVE RANGE IN NEVADA.

1. **Objective:** Conserve and protect all black bear habitat considered to be important to the conservation of the species.

a. Strategy: Delineate potential and occupied black bear habitat throughout the state, and identify limiting factors. Incorporate this information into a Geographic Information System (GIS) database.

b. Strategy: Cooperate and coordinate with federal, state and county agencies to protect and improve habitat conditions through the use of planning activities.

c. Strategy: Monitor and evaluate habitat conditions on federal, state and county owned lands and offer site-specific recommendations.

2. **Objective:** Strive to maintain overall genetic diversity and gene flow between populations.

a. Strategy: Identify and evaluate areas of historic black bear occurrence throughout the state to consider the reintroduction of the species into those areas.

b. Strategy: Maintain current distributions of black bear and strive to increase distribution into suitable unoccupied or low density areas.

### B. GOAL: IDENTIFICATION AND PRESERVATION OF BLACK BEAR TRAVEL CORRIDORS.

1. **Objective:** Identify and maintain adequate travel corridors in order to allow the black bear population to move between seasonal ranges, to preserve adequate genetic flow between populations, and to allow for the natural tendencies of bears to have large home ranges.

a. Strategy: Using modern research techniques, a GIS database will be developed, and used to identify those areas either known or presumed to be travel corridors. This information will be provided to land management agencies and the Nevada Department of Transportation.

b. Strategy: Recognize that inaccessibility to areas by humans because of land ownership patterns and/or topography provide refugia for bears.

*State of Nevada – Management of the American Black Bear*

**C. GOAL: HEALTHY AND PRODUCTIVE BLACK BEAR POPULATIONS.**

1. **Objective:** Monitor black bear populations to assess trends and detect significant changes in bear population demographics.
  - a. Strategy: Analyze data using 3-year and 10-year averages to assess short and long-term trends in the population. Data may include adult female and cub survival estimates, recruitment and mortality rates, estimates of Lambda ( $\lambda$ ) and sex and age ratios in the sport harvest.
  - b. Strategy: Department biologists will utilize modern surveying techniques, including mark/recapture, and the use of Global Positioning Systems (GPS) and GIS technology to monitor the bear population.
  - c. Strategy: NDOW will encourage and participate in black bear research with cooperating institutions and individuals.
  - d. Strategy: Sight records will be maintained and enhanced within the GIS database.
2. **Objective:** Manage Nevada's black bear population for a sustained yield.
  - a. Strategy: NDOW will employ a range of harvest criteria to gauge hunting harvest impacts on the bear population. The criteria below are consistent with a long-term sustainable bear population. These include:
    - percent females in the harvest
    - percent adult females ( $\geq 5$  years) in the female portion of the harvest
    - mean age of harvested males

Gauge harvest impact and make quota recommendations using the criteria below based on the previous three-year average. If two or more thresholds are exceeded (*Heavy Harvest*), then restricted hunting opportunity applies.

Parameter	Light Harvest	Moderate Harvest	Heavy Harvest
% females in harvest	< 30%	30-40%	> 40%
% adult females in female harvest	> 55%	45-55%	< 45%
Mean age of harvested males	> 4 years	2-4 years	< 2 years

- b. Strategy: Only legal and illegal female black bear mortalities will be included in reaching the harvest quota.
- c. Strategy: All harvest related mortalities will be included in the assessment of population status relative to harvest recommendations for subsequent years.
- d. Strategy: Using previous three-year averages will preclude the need to react to above normal black bear mortalities related to a particularly bad “conflict” year because the impacts of all bear mortalities are utilized in three-year averages and in population modeling to assess the long-term population trend. Adjustments will then be made in subsequent season recommendations to account for such a situation.

**D. GOAL: A RELIABLE AND ACCURATE BIOLOGICAL DATABASE OF NEVADA’S BEARS.**

- 1. **Objective:** To provide accurate data in a scientific manner to Department biologists for the purposes of monitoring and managing the black bear population.
  - a. Strategy: Biological data will be collected from bears handled by Department employees during physical and chemical restraint procedures and may include: time and location; morphological measurements and characteristics; and other physiological and biological parameters. Biological specimen collection and appropriate analysis will be performed. Representative samples may be stored in a repository and made available to collaborators and other interested research entities.

- b. Strategy: Bears that are captured and subsequently released will be appropriately marked to allow for subsequent identification.

**E. GOAL: A REDUCTION IN THE NUMBER OF BEAR RELATED COMPLAINTS RECEIVED FROM THE PUBLIC.**

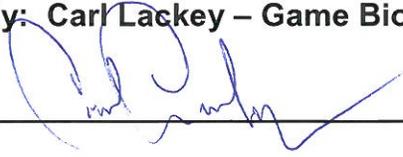
- 1. **Objective:** To reduce the number of reported human/bear conflicts, and to increase public acceptance of black bears as a naturally occurring species within certain habitats.
  - a. Strategy: Initiate and/or encourage pro-active steps to be taken to alleviate human/bear conflicts, including the support for laws and regulations needed to obtain compliance with Department objectives.
  - b. Strategy: Implement and maintain management options, such as aversive conditioning and the Karelian Bear Dog program, that effectively reduce conflicts and gain public support for the species.

**F. GOAL: Maximize educational and scientific use opportunities.**

- 1. **Objective:** Increase public awareness of the issues surrounding black bear biology, management, and human/bear conflicts.
  - a. Strategy: Provide educational materials and information to the public through public presentations, mailings, local media, handout materials and the Department website.
- 2. **Objective:** To increase understanding and knowledge of black bears in Nevada.
  - a. Strategy: Support continuing education opportunities for Department employees through the attendance of appropriate conferences and seminars relating to bear biology and management.
  - b. Strategy: Encourage and promote scientific research by universities, partner agencies and other research organizations. Promote and maintain a productive working relationship between these institutions and NDOW.
  - c. Strategy: Encourage “Bear Aware” type curriculums in local schools, with an emphasis on conservation of bears and conflict prevention. Contribute educational materials for this purpose.

**Submitted By: Carl Lackey – Game Biologist**

Signature

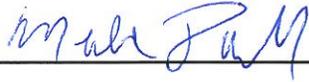


3-7-2012

Date

**Approved By: Mike Dobel – Supervising Game Biologist**

Signature



3-7-2012

Date

**Approved By: Larry Gilbertson - Game Division Chief**

Signature

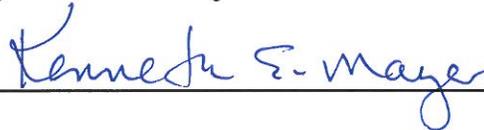


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**Approved By: Ken Mayer – Director**

Signature



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(Revised January 2012)