

BLACK BEAR SEASON STRUCTURE OUTLINE

1) Biological Data

a) Population Structure

- Nevada's bear population should not be viewed as an isolated population due to the fact that it is part of the contiguous Sierra Nevada population in the state of California, estimated to be several thousand in number.
- Nevada's portion of the Sierra Nevada population has increased over the last two decades based on mean population estimates from three different studies: Goodrich – 1992 \approx 150; Beckmann – 2002 \approx 182; NDOW/Sedinger – 2010 \approx 253
- Nevada's bear population has been estimated for the Sierra Front, i.e. the Carson Range and associated mountain ranges. The conservative estimate of 200-300 animals in this core population consists of sub-adults and adults (ages 3+).
- The population estimate is conservative because of the heterogeneity of sampling in capture probabilities.
- Population is male biased – males = 165 ± 17 , females = 88 ± 10 (adults).
- Annual survival estimates are: males = 0.887, females = 0.845 (adults).
- Annual recruitment rates are: males = 0.273, females = 0.253
- λ is: Sierra Front = 1.16 (16% overall increase for both males and females), with males = 1.22 ± 0.03 , females = 1.125 ± 0.03 . These are long-term averages.
- The population at the Sierra Front is growing at an estimated annual rate of 16%. Natural and previous anthropogenic mortalities (*management related kills and bears hit-by-cars*) are already accounted for in the model.
- The annual sustained yield estimate, based on the population estimate mentioned above is 40 ± 8 bears. This is in addition to the annual anthropogenic mortalities.
- Managing for no more than 30% females in the harvest (a safe female harvest level used in other western states) would limit female harvest to a maximum of 12 ± 2 .
- With a λ of 16%, several mortalities in any given year above sustained yield estimates would be off-set the following year by recruitment and/or immigration. Therefore, there is no long-term risk to the population if average harvest mortalities are based upon sustained yield estimates.

b) Distribution

- There are documented bear populations in several areas outside of the core population.

- Documented movements between Areas and Units include: Carson Range to Pinenuts; Buckskins to Carson Range; Wassuks to Carson Range; Sweetwaters to Carson Range; Nevada to numerous areas in California; Nevada to Oregon; and California to Nevada.

2) Management Objectives

- a) Maintain well-distributed, viable black bear populations within suitable habitat throughout their native range in Nevada (*Nevada Black Bear Management Plan-2010*).
 - Population trend assessments will be based on three-year averages utilizing survey information, mark-recapture and harvest data.
 - Female harvest levels combined with conflict management take will not exceed the estimated annual rate of increase (12.5%) for the female portion of the population (λ) based on the previous three-year average female mortality.
 - Male harvest levels will not exceed the estimated annual rate of increase (22%) for the male portion of the population (λ) based on the previous three-year average male mortality.
 - In addition to using safe harvest levels described above, an initial conservative approach will include reducing safe harvest levels by 50%. Until Nevada specific bear hunting statistics can be compiled and utilized, a conservative approach will minimize the possibilities of facing challenges related to hunter distribution or bear movement issues and any additional bear mortality factors related to harvest management.
- b) Identify and maintain adequate travel corridors in order to allow the black bear population to move between Nevada and California, seasonal ranges, to preserve adequate genetic flow between populations, and to allow for the natural tendencies of bears to have large home ranges.
- c) Consider generating revenue for Bear Management Program administration by assessing an additional tag application fee, i.e. *Elk Damage Fund*.
 - Subsidizing purchases of bear resistant trash enclosures for home owners.
 - Public outreach and education.

3) Season Structure

- a) Stratified Season

Summer – *June 1- September 14 – Archery Only, Dogs **Prohibited***

 - Archery-only season could target conflict bears by identifying certain areas where conflicts are occurring.
 - Severely decreases threat to sows accompanied by cubs of the year.
 - Work with landowners/homeowners to allow access.

- Hunting with dogs prohibited during summer season.
- Fall – *September 15-December 15 – Any Legal Weapon, Dogs **Permitted***
- Targets bears active in fall foraging in preparation of oncoming winter, particularly boars which will likely be more sought after.
 - Targets bears in good physical condition in fall.
 - Hunter access to high country better in fall.
 - LE activities more concentrated upon hunting in the fall and more diverse in the spring.
 - Hunting with dogs permitted.
- b) Use of bait prohibited at all times; it is controversial and contradicts the message of ‘Bear Aware’.

4) Open Areas

- a) Carson Range (including Tahoe Basin) – Units 192, 194 & 196
- Pros:
 - Densities are highest between Hunter Creek and Topaz; large boars.
 - Along with ample federal lands, there are State Park lands and hunting is already allowed on the Lake Tahoe State Park.
 - Cons: access; possible public opposition; firearms ordinances within congested areas prevent pursuit into urban interface.
- b) Sweetwater Range – Unit 201 is already hunted on the CA side. California bear tags may be easily purchased. We would “encourage” Nevada tag holders hunting this area to consider purchasing a California bear tag, allowing them to hunt on both sides of the state line.
- c) Virginia Range, Pinenut Range, Pine Grove Range, Wassuk Range & Excelsior Mountains – Units 195, 291, 204, 202 & 206.
- d) Most of the proposed hunt area is in Federal ownership.
- e) Firearms discharge ordinances would prevent hunting in proximity to urban areas so there is no reason to place weapon restrictions in certain areas.

5) Harvest Information

- a) Hunter Indoctrination: Voluntary bear hunter seminar with all interested parties invited. In addition, an informational brochure will be sent along with all tags.
- b) Mandatory Validation:
- Validation is appropriate in order to gather sex, age, coloration and other biological information.
 - Data would add important information to age class and population structure of wild land bears.

6) Potential Program Funding and Associated Costs

- a) Tag fee: \$50 @ 40 resident tags and \$200 @ 5 nonresident tags = tag revenue of \$3,000.
- b) Application fee revenue: \$10 @ 300-2,000 applicants would be \$3,000-\$20,000, some of which comes back to NDOW.
- c) Predator fee revenue: \$3 @ 300-2,000 applicants would be \$900-\$6,000.
- d) Proposed Bear Management fee revenue: \$10 @ 300-2,000 applicants would be \$3,000-\$20,000. Would require statutory change to NRS.
- e) Heritage Tag. A Heritage Tag might bring considerable revenue to the Heritage Program and future black bear research or management programs would be eligible for funding through this program.
- f) Alternative to a Harvest Program – NDOW will need to pursue other avenues to continue to fund urban bear management work.

7) Regulatory Considerations

Regulatory Considerations:	
Tag Quota:	45 by draw using most conservative hunter success rates in Western states (Utah) to generate tag quota. <ul style="list-style-type: none"> ▪ Tag can be used to hunt in any open Unit Group. ▪ The season closes when Harvest Limit has been achieved.
Unit Group:	192, 194, 195, 196 201, 202*, 204, 206, 291
Limit:	One bear, either sex.
Area Description:	Carson Range – Verdi to Topaz, Pinenut and Virginia Ranges Desert Creek, Sweetwaters, Pine Grove Range, *Wassuk Range- <i>could require further negotiations with Department of Defense</i> , and Excelsior Mtns
Harvest Limit	<i>**See below</i>
Total Bear Limit:	20
Female Limit:	(6)
Harvest Limits:	The hunting season will close upon reaching the harvest limit, whichever occurs first, either the female limit or combination male and female limit.
Summer:	June 1 – September 14 - archery only, use of dogs prohibited.
Fall Season:	September 15 – December 15 - any legal weapon, use of dogs permitted.
Hours:	One half hour before sunrise to sunset.
Legal Weapons:	Only legal weapons authorized for big game, with weapon restrictions during the summer season.

Special Regulations:	<ul style="list-style-type: none"> ▪ Unlawful to kill a sow accompanied by cubs. ▪ Unlawful to kill a cub. ▪ A hunter, or their licensed guide if applicable, must call the black bear hotline at 1-800-800-1667 prior to hunting to determine if the hunt is open or closed. ▪ Hunters are requested to call NDOW as soon as is reasonably possible after killing a bear. ▪ Hunter must present any harvested bear to NDOW for validation within 72 hours ▪ Evidence of sex must remain naturally attached.
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***these harvest limits are set at 50% of sustained yield estimates for the Sierra Front population. At these harvest levels, the bear population would be expected to continue to grow slightly or remain stable.*

Additional Administrative Considerations:

- Use existing lion hotline – modify greetings/choices to notify callers when bear harvest objectives have been met and season is closed.
- Coordinate with Dispatch and Law Enforcement, Conservation Education and Game Divisions when season is closed.
- Need to create a validation form.
- Chapter 502 of NAC will need to be updated to **ADD NEW** language to the following:
 - Fees
 - Eligibility – Resident, Nonresident and waiting periods
 - Presentation of animal
 - Unlawful take – females/cub definitions
 - Toll free number and guidelines for season closure related to harvest objectives
 - Accidental trapping
- Chapter 502 of NAC will need to have the following sections **amended**:
 - 502.331, 502.4187, 502.4188 regarding bonus points
- Chapter 503 of NAC will need to be updated to **ADD NEW** language for the following:
 - Baiting
- Chapter 503 will need to have the following sections **amended**:
 - 503.147 Hunting with dogs
 - 503.174 Gallbladder and restricting sale
- Chapter 504 will need to have the following section **amended**:
 - 504.210 Management area listing to include bears