

**A THREE-YEAR COMPREHENSIVE REVIEW OF  
BLACK BEAR HARVEST THROUGH REGULATED HUNTING IN NEVADA**

**NEVADA BOARD OF WILDLIFE COMMISSIONERS**

**BLACK BEAR COMMITTEE**

*January 14, 2015*

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## **Executive Summary**

Nevada Senate Bill 82 from the 2013 legislative session urged the Nevada Board of Wildlife Commissioners (Commission) to conduct a 3-year comprehensive review concerning the regulated harvest of black bears. As trustees of wildlife held in the public trust, the Commission embraces this responsibility and has already been reviewing its practices and procedures prior to the legislative urging. The public trust responsibility is based on both biological data and social perspectives. Biologically, the harvest of black bears is conservative considering the estimated population size, demographic composition of the harvest, and ongoing population monitoring. Socially, the public has a variety of perspectives regarding the acceptability of regulated harvest of black bears in Nevada. It has proven difficult to find consensus agreement on the hunt in general, and the specific rules and regulations that govern the hunt. The Commission remains receptive to the possibilities of continuing, amending, or eliminating the bear hunt pursuant to statutory authority. The Black Bear Committee has prepared a set of recommendations within this report that should facilitate future Commission discussion on the black bear hunt.

## **Recommendations to the Commission by the Black Bear Committee:**

1. The Commission should consider retaining a season structure and harvest level that does not decrease the population size of black bears in Nevada and should consider season structure and quotas annually.
  - a. The Commission should request and obtain annual hunt reports and a population status report from the Department prior to season and quota setting.
  - b. The Commission should request and obtain an update of the Program MARK population model, including the first three years of hunt data.
  - c. The Commission should encourage ongoing black bear studies and monitoring efforts by the Department and others, and encourage sharing updates and findings as they become available.
  - d. The Commission should consider requesting the Department to develop a consistent post-harvest check protocol and training to determine female reproductive status.
2. The Commission should maintain all special regulations currently in place, including:
  - a. Mandatory hunter indoctrination course.
  - b. Mandatory post-harvest check-in.
  - c. Prohibition on harvesting a cub or a sow accompanied by a cub.
  - d. The Carson Front-Lake Tahoe Basin Hunt Closure Area.
3. The Commission should maintain a similar fall hunt season structure.
  - a. The Commission should consider any recommendations by the Department to vary season and hunt structure in a manner that provides hunt opportunity in a manner that does not negatively affect the viability of the population and considers social concerns that have been expressed.

- b. The Commission and Department should not consider a spring hunt at this time.
4. The Commission should evaluate and initiate revision to any relevant administrative code as deemed appropriate. In this evaluation, the Commission should consider
    - a. 503.147 (Hunting with a dog) to consider appropriate methods of pursuit, and discuss the merits of adding the option of a spot and stalk only season as deemed appropriate by the Commission in the future.
    - b. 502.400 (Attachment of a tag or permit to an animal) to consider appropriate harvest tag placement, as the current regulation is somewhat ambiguous for black bear.
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  5. The Commission should consider conducting a human dimensions survey using a recognized expert in the field to determine public perceptions about black bear management in Nevada.
  6. The Commission should continue to engage and encourage input from all stakeholders, including but not limited to the Department, County Advisory Boards to Manage Wildlife, and interested public to solicit ideas to improve the bear hunt and bear management in general.
    - a. Focus should remain in areas where some level of consensus was reached among the Committee members, specifically in regards to:
      - i. Increased funding for black bear management, research, and population monitoring.
      - ii. Trash management, particularly in the Lake Tahoe Basin and Carson Front.
      - iii. Education of the general public on living with bears.
  7. Approve and forward the Comprehensive Three-year Review of Regulated Black Bear Harvest in Nevada to the Nevada Legislature.

# **A THREE-YEAR COMPREHENSIVE REVIEW OF BLACK BEAR HARVEST THROUGH REGULATED HUNTING IN NEVADA**

## **Introduction**

During 2011, the Nevada Board of Wildlife Commissioners (Commission) adopted a black bear hunt to provide recreational opportunity for Nevada sportsmen in accordance with Nevada Revised Statute (NRS) 501.102. The objective of the hunt within the first 3 years was not to reduce the black bear population or address urban conflict issues. This hunt has had increased application demand annually, yet stirs concern among some Nevada residents that oppose the harvest of black bears or specific aspects of the hunt. This disagreement among citizens prompted concern among the Nevada legislature as well.

On January 31, 2013, Nevada Senate Bill 82 was introduced. After substantial consideration and amendment by the legislature, the final bill was enrolled and delivered to the Governor on May 27, and he approved it on May 28, 2013. The statute became effective that same day (appended). This bill, according to Legislative Counsel's digest, provides "Existing law: (1) requires the Board of Wildlife Commissioners to adopt regulations establishing seasons for hunting game mammals and the manner and means of taking wildlife; and (2) authorizes the Commission to adopt regulations setting forth the species of wildlife which may be hunted or trapped without a license or permit. (NRS 501.181, 502.010) **Section 11.7** of this bill urges the Commission to thoroughly conduct its 3-year comprehensive review of the hunting of black bears."

This report was prepared in response to the request by the legislature to the Commission to conduct a comprehensive 3-year review of black bear harvest through regulated hunting.

## **Process**

The conservation and management of wildlife species is generally accomplished within the United States in accordance with the public trust doctrine, which is the principle that certain resources are retained for public use, and that the government is required to maintain them for that public's reasonable use. In Nevada, among the trustees of this public trust are the legislature and the Commission. Professional state agency wildlife biologists are trust managers that serve those trustees. Conservation and management require that decisions be based on sound biological foundations, but consider social perspectives as well.

The Commission has considered biological data and social perspectives prior to this request by the Nevada Legislature. Adoption of hunting regulations for black bears in Nevada is within the conservation and management authority of the Commission, and the Commission exercises its public trust responsibility by considering public comment during the approval process. In the 3 years since black bear hunting was initially adopted, the Commission has amended open areas as a result of public input (maps of changes to open areas appended to report). Annual consideration of harvest regulation is an implicit part of the biological and social review process.

The Commission is vested with several duties by NRS 501.181, which define Commission Duties. In section 4.(a) it specifies: "*Seasons for hunting game mammals and game birds, for*

*hunting or trapping fur-bearing mammals and for fishing, the daily and possession limits, the manner and means of taking wildlife, including, but not limited to, the sex, size or other physical differentiation for each species, and, when necessary for management purposes, the emergency closing or extending of a season, reducing or increasing of the bag or possession limits on a species, or the closing of any area to hunting, fishing or trapping. The regulations must be established after first considering the recommendations of the Department, the county advisory boards to manage wildlife and others who wish to present their views at an open meeting. Any regulations relating to the closure of a season must be based upon scientific data concerning the management of wildlife. The data upon which the regulations are based must be collected or developed by the Department."*

NDOW provided biological and scientific comparative data to examine the sustainability of black bear harvests as currently regulated within Nevada, and NDOW suggests that the current harvest levels are sustainable. Social perspectives are much more diverse. This diversity was captured in a report presented to the Commission on February 8, 2008, which is included in the appendices and entitled "Black Bears and Public Opinion: A Summary of Other States' Lessons Learned." The Commission established a Black Bear Committee, which met 9 times between March 22, 2012 and January 14, 2015 (minutes appended) to attempt to capture social issues and identify common issues. The Black Bear Committee was initiated prior to Senate Bill 82, evidence of the Commission's interest in public perception as part of their commitment to the public trust. Because public input was relatively polarized on some topics, this report will identify social perspectives on which consensus was not achieved.

This report was prepared by the Black Bear Committee and submitted to the Commission for their consideration and action. The members of that Committee include Commissioner David McNinch (chairman), Commissioner Jeremy Drew, Commissioner Grant Wallace, and Committee Member Kathryn Bricker.

## **Biological Data Review**

*Status – Submitted by NDOW*

Nevada's bear population is believed to be part of the larger Sierra Nevada population, estimated at 10,000–15,000 black bears. Based on data provided by NDOW and other research studies, a viable population of black bears exists in the Carson Range of the Sierra Nevada, the Pinenut Mountains, Virginia Range, Peavine Mountain, Pine Grove Hills, Wassuk Range, Sweetwater Mountains, East Walker River area, and likely the Excelsior Range. Occupancy in other historical habitat has been documented, but these bears are not likely part of self-sustaining populations and these are likely to be transient animals. Based on available data sets, analyses, and long-term trends, along with empirical data collected from captured bears, sightings, and mortalities, Nevada's black bear population is thriving and increasing numerically and in geographical distribution, including into some unoccupied historical habitat. The harvest limit criteria established in the Black Bear Management Plan were not met in 2011, 2012, or 2013 (see Table 3).

Modeled population estimates for Nevada's black bear population were calculated in 2008 at 262 ( $\pm 31$ ) and in 2011 at 456 ( $\pm 39$ ) for the area encompassing the Carson Range, the Virginia Range and the western portion of the Pine Nut Mountains. Using data collected over the past year in the NDOW Game Division's deterministic population reconstructive spreadsheet model that is used for all big game species, the preliminary updated estimate for 2014 is just over 600 animals. This updated estimate compares favorably with the Program MARK estimate calculated in 2011 that put Western Nevada's bear population between 400–700 animals. This information was compiled and published in a peer-referred journal as appended to this report.

*Harvest Analysis – Submitted by NDOW*

Nevada's first managed black bear hunting season commenced on August 20, 2011 and ended on December 31, 2011. The 2012 and 2013 seasons were open from September 15 to December 31. The harvest limit established by the Commission remained at 20 bears each year. Forty-five tags were available each year to resident and non-resident licensed hunters combined. Applications for these tags increased each year with 1,242 tag applications received in 2011, 2,287 in 2012, 2,680 in 2013, and 3,029 in 2014. Return and nonparticipation has remained similar among years (Table 1).

**Table 1. Authorized permit levels, application demand, return, and nonparticipants for the Nevada bear hunt, 2011–2014.**

Parameter	2011	2012	2013	2014
Permits authorized	45	45	45	45
Applications	1,242	2,287	2,680	3,029
Returned permits	2	2	0	0
Nonparticipants	4	2	3	5

NDOW developed a Black Bear Management Plan (appended) that specifies annual harvest statistics will be analyzed along with harvest data from the most recent 3 years. Additionally, once NDOW has amassed 10 years of harvest data, the annual review will include an examination of the long-term data set, similar to analysis conducted for all other big game species. Therefore, because 2013 was the third year of Nevada's black bear hunt, this report will include a thorough summary of the harvest data collected between 2011 and 2013. It will also contain more detail than previous annual Black Bear Status Reports to provide a more comprehensive review.

Criteria identified in the Black Bear Management Plan (Table 2) are consistent with maintaining a sustainable bear population, and are similar to criteria used by many other wildlife agencies. Further, to fully evaluate the demographics of the state's bear population, NDOW supplements this hunter harvest data with its progressive and extensive mark-recapture data. This allows NDOW the ability to evaluate various demographics of the bear population, both short-term and long-term, and to discern any remarkable changes in vital rates that might constitute a change in the bear hunt strategy.

**Table 2. Black Bear Management Plan harvest management criteria.**

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

Each tag holder or their licensed guide was required to attend a mandatory Bear Hunt Indoctrination Course prior to receiving their tag and participating in a hunt. Indoctrination courses were held in Reno and Las Vegas and covered information pertaining to bear behavior, bear sex and size identification, legal hunting areas, hunting methods, and field care of the hide and meat. Additionally, attendees were thoroughly instructed about open hunting units and specifically on areas to avoid, like private Indian lands and the Tahoe Basin. All hunters were required to personally present the hide and skull of harvested bears to a Department representative for verification. Information on each kill was acquired during this verification, to include the sex of each bear, estimated age, physical condition, location of kill, and method of hunt. Bear hunting has been conducted in a predominately lawful manner. In the history of this hunt, 2 citations have been issued: 1) during 2011 regarding the prohibition on the use of baits and 2) during 2013 when a hunter harvested a bear involved in an apiary incident within a unit that was closed to hunting.

Thirty-nine bears were harvested during the first 3 years of Nevada's black bear hunt (Table 3). Based on the availability of 45 tags/year, hunter success was 29%; the maximum allowable hunter success would have been 44% due to the harvest limit (quota) of 20 bears annually. Based on NDOW's examination of all criteria outlined in Black Bear Management Plan, harvest data from the last 3 years indicate the bear harvest was conservative. Of the 39 bears killed, 29 were males and 10 were females, with mean ages of 5.7 and 7.0 years respectively (Table 3). Based on capture data, the ratio of males to females within the population is 2:1, whereas the ratio of males to females in the harvest is 2.9:1.

NDOW routinely captures and marks black bears as part of ongoing research and human-bear conflict management. Comparing demographic data from those captured and marked during 1997–2013 ( $n = 399$ ; 2013 Black Bear Status Report) with similar data from hunter-harvested bears indicates that hunter-harvested bears are slightly older than bears handled for any reason as a result of any first event (e.g., capture or incident; first-event bears). The mean age of 295 first-event male bears and 189 female bears handled from 1997–2013 is 4.6 years and 6.0 years, respectively (Table 4). Additionally, the percent of first-event adult females ( $\geq 4$  years) handled during the same period was 61% compared to 80% of hunter-harvested bears. All indications are that the number and age cohorts of bears harvested during the hunt can be considered light and well within criteria adopted to facilitate maintenance of a sustainable bear population.

**Table 3. Demographic statistics from hunter harvested bears in Nevada during 2011–2013, and classification of harvest intensity according to criteria within the Black Bear Management Plan.**

	2011 <sup>a</sup>	2012	2013	3 year	Classification of harvest intensity <sup>b</sup>
Male bears killed	9	10	10	29	
Female bears killed	5	1	4	10	
<b>% females in harvest</b>	36%	9%	29%	<b>26%</b>	Light harvest
<b>% adult females within female harvest</b>	80%	100%	75%	<b>80%</b>	Light harvest
<b>Mean age males</b>	5.9	5.1	6.1	<b>5.7</b>	Light harvest
Mean age females	6.9	9.0	7.8	7.0	
Mean age all	5.9	5.5	6.6	6.0	
Male/female ratio	1.8	10.0	2.5	2.9	
Hunter success rate	31%	24%	31%	29%	
Hunter effort in days/kill	8.3	8.7	7.8	8.2	
Average days scouted	7.0	2.1	4.0	4.6	
Hunt Method:					
Dogs	12	7	8	27	
Spot-stalk	2	4	5	11	

<sup>a</sup> In 2011, a female harvest quota was used, but a total bear harvest quota was used in subsequent years.

<sup>b</sup> Based on NDOW Management Plan criteria.

**Table 4. Age cohort, sex, and number handled (with mean age) for all black bears handled in Nevada during 1997–2013.**

Age cohort	Sex	Number handled during 1997–2013 (mean age)
Cubs (≤12 months)	Male	73
	Female	71
Sub-adults (1–3 years)	Male	148
	Female	73
Adults (≥4 years)	Male	147 (7.2 years)
	Female	116 (8.6 years)
All bears	Male	295 (4.6 years)
	Female	189 (6.0 years)

NDOW has marked and monitored a substantial number of black bears annually through research and relocation efforts. Harvest is monitored with mandatory physical inspections. Age and sex determination is vital to assessing harvest intensity. NDOW intends to continue this monitoring and increase as needed.

#### *Public Perceptions Regarding Population Status and Harvest Analyses.*

Certain members of the public have voiced concern that management objectives and monitoring criteria may not be sensitive enough to detect over harvest. Some outside experts (not employed by NDOW) with substantive knowledge have stated that the current level of harvest is sustainable, whereas other experts have suggested greater concern (comments recorded in minutes of Black Bear Committee meetings). All agreed on the importance of continuing to monitor the bear population and harvest to ensure that the population was not over exploited.

Other concerns have been expressed:

- Confusion regarding reported growth rates in Nevada bear populations when compared with adjacent (and contiguous) California bear populations.
- Capabilities of existing statistical models to detect changes in bear population estimates and the statistical power to draw inferences prior to substantive negative population changes (or positive changes) in relation to harvest recommendations.

#### **Social Perspective Review**

Differences in core values regarding the appropriateness of hunting bears has made consensus difficult to reach on many aspects of the hunt. Nevertheless, these differing perspectives are important aspects in considering conservation and management direction for the Commission.

#### *Timing of Hunt*

The public has shared considerable discussion about the merits of spring and fall bear seasons. Other states have seasons that occur during the spring and the fall, but substantial concern has been voiced about the increased potential for inadvertent orphaning of young cubs during a spring hunt in Nevada. NDOW believes that while an orphaning event may occur during a fall hunt, the potential for an orphaned cub to survive at that age is greater because the dependence on the female is less. NDOW has provided no evidence of any cubs being orphaned as a result of the 3 years of hunting based on mandatory post-harvest checks. Concerns were raised regarding the consistency of determinations based on biological characteristics of female bears during the check procedure. NDOW has identified improvements that may be made regarding specialized knowledge necessary to better determine if a female bear was recently accompanied by a cub, and has committed to providing this training to individuals involved with mandatory bear post-harvest checks.

Some states have also capitalized on the likelihood of females to den earlier in the fall and leave dens later in the spring to influence the probability of harvesting females. Fall seasons that occur later in the fall and spring seasons that occur earlier in the spring are less likely to harvest female

black bears. Some states have chosen not to implement this strategy due to the ineffectiveness in their state.

The Commission has adopted season structures and strategies that have resulted in harvests of predominately males. The skewed male:female ratio of the bear population (i.e., more males than females) and hunter selectivity may also influence the harvest demographics.

#### *Conflicts with Other Resource Users*

Hunting is sometimes viewed as incompatible with other resources uses, even when that hunting activity is limited in participation. In other states, hunters pursuing bears have been perceived as a disturbance to hunters pursuing other species, such as elk or deer. One such concern in Nevada has been the perception that black bear hunting could be disruptive to activities like hiking.

To address this, the Commission has adjusted season dates to avoid periods when the conflict is greatest within areas where hiking use is most concentrated (i.e., late summer and early fall in the Carson Range and Tahoe Basin). During 2011, the bear season began on August 20. Subsequent seasons began on September 15. All seasons run through December 31, although the season ends when a predetermined quota is achieved. The current hunt structure maintains a long season across a large geographic area with limited permits available, which limits the potential for high concentrations of tag holders in any one area at any one time and subsequently limiting the potential for conflicts with other public land uses.

#### *Hunt Boundaries*

Areas where bears seem to have the most conflict with humans are the areas where most human recreation is concentrated. These areas often have the most diverse publics that recreate in a variety of ways. This is also the area where human disposal of waste is often an attractant that creates issues between bears and humans. Within Western Nevada, this best describes the area around Lake Tahoe and the western Carson Front, where many publics recreate and some perceive bear hunting as an incompatible recreational activity.

To address this, the Commission has already adopted closures to black bear hunting within the area surrounding Lake Tahoe and several recreational trails. All of Units 192, 194, 195, 196, 201, 202, 204, 206, and 291 were open in 2011 (Figure 1). During 2012–2013, portions of Units 192 and 194 were closed to hunting (Figure 2 and 3).

#### *Hunting Methods, including Hunting with Hounds and Baits*

Nationally, black bear hunting is often authorized to allow a variety of differing methods, including pursuit with hounds or hunting over artificial baits. Both techniques can provide hunters with the ability to be more selective in their harvests (hunters may observe a bear that has been brought to bay by hounds or from an observational stand when approaching an artificial bait). Some publics are concerned with the fair-chase aspect of hunting using these techniques, and artificial baits are also considered by some to be another human waste product that may

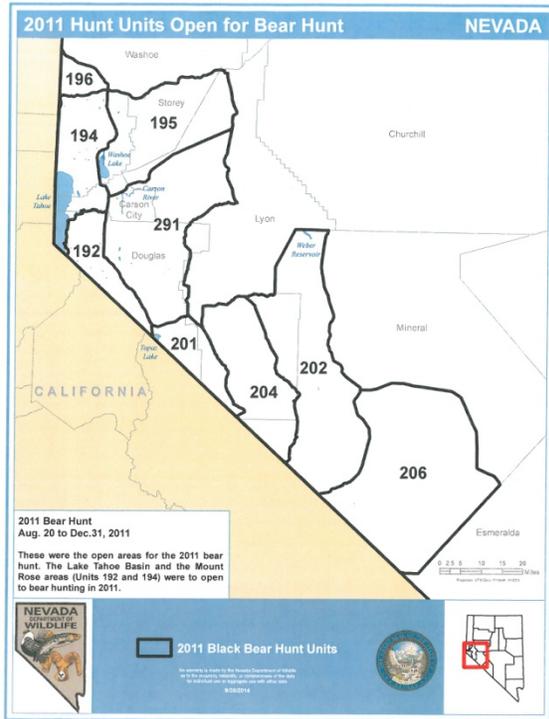


Figure 1. Open areas for the Nevada bear hunt in 2011.

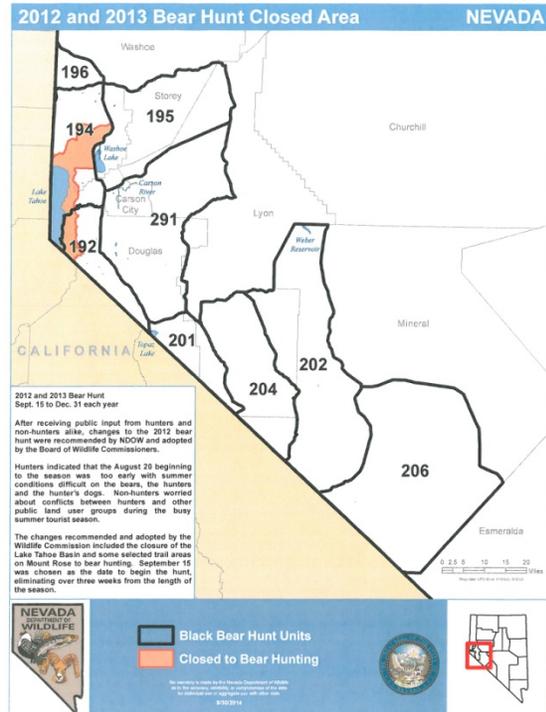


Figure 2. Open areas for the Nevada bear hunt in 2012–2013. Note orange closure area.

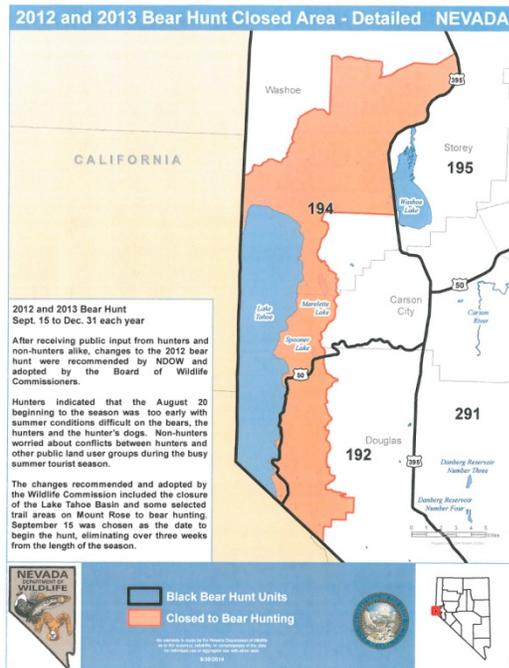


Figure 3. Finer resolution of closed area for the Nevada bear hunt in 2012–2013.

induce conditioning of bears about the availability of food from humans. Use of artificial baits has substantially increased harvest rates in some states.

The Commission has adopted regulations that allow the use of hounds, but not baits. Hunting must be conducted during lawful hunting hours, similar to all other big game. The Commission has authorized seasons with low hunter density and with hunters distributed throughout a variety of open areas so as to reduce the likelihood of the pursuit of individual bears multiple times. NDOW has not provided any information that would suggest this has occurred, although such an event is possible.

Use of hounds to hunt bears requires dogs with specialized training and does not guarantee harvest success. In some states, selectivity of hunters with hounds does not differ markedly from hunters that do not use hounds. The majority of bears harvested during the Nevada hunt are taken by hunters using trained hounds to put the bear at bay. The discussion on the use of hounds and baits during bear hunts are controversial and have been prohibited in some states.

Some members of the public have expressed concern about the use of hounds during the fall when black bears dramatically increase their consumption of calories in preparation for hibernation. This is a period known as hyperphagia, and repeated disturbance during this period could conceivably reduce a bear's ability to obtain adequate nutrition to hibernate optimally or induce loss of fetus.

The use of GPS and VHF telemetry collars on hounds have initiated discussion among the public. Some have expressed a concern because the telemetry collars can be used to locate a hound when it has a bear at bay, which some perceive as an unfair advantage for hunters using hounds. Others believe that the telemetry collars on hounds actually provide an electronic leash that precludes hounds free ranging inappropriately and allows hunters to retrieve hounds when the hunt is over.

#### *Special Regulations Adopted by Commission Specific to the Bear Hunt*

These include:

- Mandatory hunter indoctrination course.
- Mandatory post-harvest check-in.
- Prohibition on harvesting a cub or a sow accompanied by a cub.
- A complete list of special regulations currently adopted by the Commission regarding the bear hunt are appended to this report.

#### *Summary of Social Concerns – Public Perceptions of Bear Hunt*

1. General support or opposition to the concept of a bear hunt is unlikely to change. Basis of support or opposition is personal beliefs and values.
2. Opposition to the potential for orphaned cubs, take of cubs, and over harvest of sows.
  - a. Unlikely to change unless hunt is eliminated or harvest of sows prohibited.

- b. Mitigation measures already in place: no spring hunt, mandatory indoctrination and check in, regulation prohibiting taking sows accompanied by cubs.
- c. Mitigation measures that may be considered:
  - i. Sow quota (eliminated after first hunt, and harvest has actually decreased).
  - ii. Sow quota by hunt unit rather than by entire hunt.
- 3. Opposition to the use of hounds, particularly during fall when energetic demands are high in preparation for hibernation (hyperphagia).
  - a. Unlikely to change unless the use of hounds is eliminated from the hunt.
  - b. Mitigation measures already in place:
    - i. Mandatory indoctrination.
    - ii. Low hunter densities.
    - iii. Open areas limited by hunt.
  - c. Mitigation measures that may be considered:
    - i. Elimination of hounding from the hunt.
    - ii. Spot and stalk only hunts or seasons.
    - iii. Varied season timing.
    - iv. Require hunter and houndsman to attend the indoctrination class before hunt.
  - d. Potential conflict with other multiple uses, primarily recreation and fall pine nut harvest.
  - e. Unlikely to resolve all potential conflicts unless hunt is eliminated.
  - f. Mitigation measures already in place:
    - i. Season start date after Labor Day.
    - ii. Tahoe Basin closure.
    - iii. Mandatory indoctrination.
    - iv. Large hunt area and low permit numbers
  - g. Mitigation measures that may be considered:
    - i. Different seasons for Carson Range Units and eastern (pine nut) units.
- 4. Other concerns identified:
  - a. The small sample size of bears killed at the end of 3 years (39) may limit the predictive capability to detect a possible long term decline in the bear population.
  - b. The 3 year sample is not randomly collected, thereby limiting its utility.
  - c. Because the Nevada bear population has no closed geographic boundaries, population estimates from the mark-recapture model may be less robust. The concerns remain even though the results have been published in peer-refereed scientific literature.
  - d. Current population estimates do not differentiate or discriminate any differences that may exist between overlapping wildland and urban bear populations.
  - e. Concern has been expressed about the potential for overharvest within specific management units under the current hunt structure. To this point, NDOW has not expressed a similar concern or proposed changes to the hunt structure.
  - f. Some believe that if the use of hounds is eliminated from the hunt it may result in an increased harvest of female bears or increased potential for orphaning of young. Others argue that the data do not support this claim.

**Recommendations to the Commission by the Black Bear Committee:**

1. The Commission should consider retaining a season structure and harvest level that does not decrease the population size of black bears in Nevada and should consider season structure and quotas annually.
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## **Appendices**

## LIST OF APPENDICES

<u>SECTION</u>	<u>TITLE</u>
<b>Senate Bill</b>	Senate Bill No. 82 (SB 82)
<b>Policy/Plan</b>	Black Bear Conflict Management Policy Black Bear Management Plan – 2012
<b>Department Analysis</b>	Black Bear Status Report – 2013 2011 Hunt Units Open for Bear Hunt 2012 and 2013 Bear Hunt Closed Area 2012 and 2013 Bear Hunt Closed Area - Detailed Black Bear Season Regulations 2011 to 2015
<b>Population Assessment</b>	Black Bear Population Assessment Methodology and Data Analysis in Nevada: A Review – Nevada Department of Wildlife 2011 Estimation of Black Bear Population Dynamics Black Bear Population Status – Informational Report - Board of Wildlife Commissioners - September 23, 2011
<b>Committee Minutes</b>	Black Bear Committee Minutes – March 22, 2012 to January 14, 2015
<b>Media</b>	Nevada Wildlife Officials to Conduct “Top-to-Bottom” Review of State Bear Hunt Friday – January 16, 2014 Bear Hunt Back From Hibernation – September 19, 2013
<b>Literature</b>	Effects of habitat and hunting framework on American black bear harvest structure in Wisconsin – 2010 West Virginia residents’ attitudes and opinions toward American black bear hunting - 2009 Hunting Patterns, ban on baiting, and harvest demographics of brown bears in Sweden – Jan 2008 Going into the 21 (st) century: a perspective on trends and controversies in the management of the American black bear - 2007 Paying for tolerance: Rural citizens’ attitudes toward wolf predation and compensation – Dec. 2003

**SECTION**  
**Literature**  
**(cont'd.)**

**TITLE**

Effects of hunting with hounds on a non-target species living on the edge of a protected area – Jan 2011

Bear Historical Ranges Revisited: Documenting the Increase of a Once-Extirpated Population in Nevada -

Effects of hunting with hounds on a non-target species living on the edge of a protected area – 2010

Experimental Pursuit of Black Bears with Trained Bear Dogs

Effects of habitat and hunting framework on American black bear harvest structure in Wisconsin - 2010

Black Bears & Public Opinion – A Summary of Other States' Lessons Learned – February 8, 2008

Using Genetic Relatedness to Investigate the Development of Conflict Behavior in Black Bears

Carnivores, urban landscapes, and longitudinal studies: a case history of black bears – Fall 2008

Are Desert Basins Effective Barriers to Movements of Relocated Black Bears (*Ursus Americanus*)? - 2004

Using Black Bears to test Ideal-Free Distribution Models Experimentally - 2003

Rapid ecological and behavioural changes in carnivores: the responses of black bears (*Ursus americanus*) to altered food

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