



February 11, 2022

Peter S. Silva, President  
 California Fish and Game Commission  
 715 P Street, 16th Floor  
 Sacramento, CA 95814

**Re: Agenda Item 30 (B) III – February 2022 Commission Meeting  
 HSUS Petition # 2021-027 – Black Bear Hunting**

Dear Commissioners,

The undersigned wildlife conservation organizations appreciate the opportunity to provide comment on the Humane Society of the United State (HSUS) petition (Petition #2021-027) to the California Fish and Game Commission which proposes that the hunting season for black bears be closed until the California Department of Fish and Wildlife (CDFW) has studied the state’s black bear populations, the impacts of drought and wildfire upon the bear population, and has updated the state’s Black Bear Management Plan.

First and foremost, the undersigned organizations are united in extreme opposition to any closure of bear season in California, as the best available science clearly validates that our black bear populations are currently in excellent condition. Classified as a game mammal in California in 1948, regulations

pertaining to the hunting of black bears are highly restrictive and include no spring hunting season, a ban on the use of dogs to pursue bears, a ban on the use of bait, a prohibition on trapping and killing of cubs or sows with cubs, a closure of hunting in large areas of the state that include bears, the additional closure of some public lands within the bear hunt zone, and currently restraining the bag limit to one bear per license year. To further ensure that hunting does not adversely impact CDFW's goal of maintaining a healthy black bear population, the department annually monitors the bear population relative to a decision matrix which provides important safeguards to prevent any unexpected negative impacts to our bear resource. Using hunter harvest data, this matrix closely monitors four elements of the bear population – median ages of hunter killed bears, percent females in harvest, total harvest, and kill per hunter effort and population index – and applies thresholds of concern for each of these characteristics. Should two or more of these thresholds of concern be exceeded in any given year, the current Bear Management Plan requires that CDFW recommend to the Commission that the bear harvest be reduced. Additionally, CDFW tracks the health of our bear population by collecting teeth from hunter harvested bears and counting the rings in the teeth to determine the age of the bear. Because over-harvested populations are younger than populations with low mortality rates, monitoring the median age in a population provides supplementary information needed to accurately determine and maintain the health of our state's bear population. Moreover, CDFW monitors the number of depredation permits issued each year to determine the relative abundance of bears where they encounter people. With all the above noted scientific data annually gathered, assembled, and analyzed, CDFW has significant “real-time” data with which to make annual harvest recommendations to the Commission which ensure California's black bear population is healthy and viable for the enjoyment and use of all Californians.

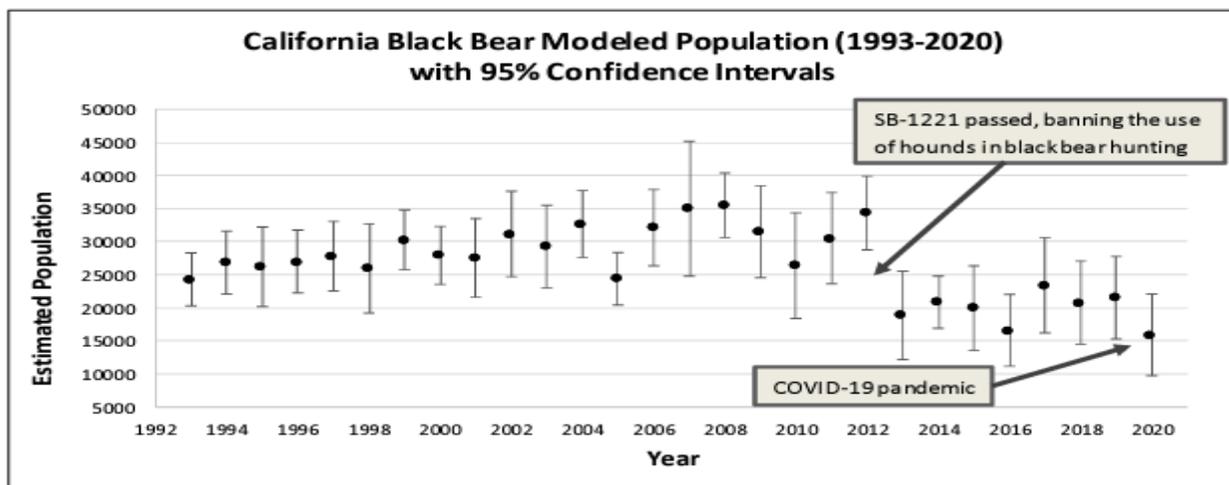
Although the current best available data clearly shows that California's bear populations are currently at historic levels, Petition 2021-027 attempts to assert that our black bear populations are at such extreme risk of extirpation from climate change, wildfires, and drought, that no additional hunter harvest should be allowed. In their attempt to do so, the petitioners have only included literature that supports their petition, stating a lack of research on black bears in California when, in fact, there is extensive data. The petitioners make numerous unsubstantiated claims, appear to intentionally misrepresent population data, and make baseless accusations which completely contradict the results clearly presented by CDFW in their “Black Bear Take Report of 2020”.

Although, as previously noted, CDFW derives the statewide black bear population estimates using a variety of methods well established in the scientific community to accurately monitor statewide population trends, the petitioners attempt to discredit the methods the CDFW uses to derive black bear population estimates. They then contradict themselves by using the same data to claim bear populations in California have decreased by 67%. Either the petitioners do not understand how population modeling works, or they simply choose to ignore CDFW's statement in the “Black Bear Take Report of 2020” that clearly explains the black bear population is not in a severe decline, but that the population size is likely much higher than their estimate.

*“An age-at-harvest model is used to produce a conservative estimate of total bear abundance within the bear hunt zone at the time the black bear hunting season began.... In 2013, the use of hounds in the sport take of bears was prohibited, which violated a key assumption in that model regarding consistent hunter effort. Annual bear harvests have been relatively lower since this ban, resulting in correspondingly lower population estimates. The average population growth rate in the years following the ban (1.00 in 2013-2020) remains steady and on par with the average population growth rate in years before the ban (1.03 in 1993-2012). Due to this, the Department expects that the reduced population estimates are solely an artifact of the model's constraints... It is important to note that this method only estimates bears within the bear hunt area, prior to the commencement of the previous year's hunting season. As bears occupy habitats outside the bear hunt area, **the statewide population is likely greater than this estimate.**”*

*The Department monitors the black bear population in accordance with the 1998 Black Bear Management Plan. Contained within this plan is a matrix of thresholds of concern for the statewide black bear population. The plan states that if two or more of these thresholds are exceeded, the Department will recommend to the Fish and Game Commission that the bear harvest be reduced. None of the four thresholds of concern was exceeded, but one was unable to be measured. Due to restrictions put in place in response to the COVID-19 pandemic, teeth were not collected from harvested bears, and median ages cannot be determined. Females comprised 38.05% of harvested bears of known sex, which remains below the 40% level of concern. While there was statistically significant reduction in harvest compared to previous years' averages, this was not independent of administrative action. The COVID-19 pandemic response included stay-at-home orders across the state, which likely prevented many hunters from hunting in 2020."*

As the "Black Bear Take Report of 2020" states, reduction of harvest through regulation changes will affect the population estimate as was the case when hound hunting was prohibited (Figure 1). However, the overall trend from 2014 to present shows the population is stable to increasing, minus the anomaly in 2020. As CDFW pointed out in the "Black Bear Take Report of 2020", the low population estimate for 2020 was a direct result of a reduction in harvest due to the COVID-19 "stay at home" order and sweeping closures of public and private lands due to wildfires – not a result of a reduction in black bear population size.



**Figure 1. Yearly Bear Population Estimates adapted from the 2020 CDFW Black Bear Take Report**

Petition 2027-027 claims that black bears are at risk of "overkill" from hunting – including using the ecological term "super-additive mortality" to spark public emotion, when the common term used is "additive mortality". "Super-additive mortality" is a term rarely used in scientific literature because it primarily applies to issues with endangered species. Regardless, as previously noted, the comprehensive bear population model used by CDFW would quickly detect if hunting was causing a significant population decline (i.e., unreasonable "additive mortality").

Black bears in California now reside in places they historically never occurred and have increased in abundance in places historical populations were low (Brown et al. 2009; Figure 2). The only habitats that do not currently support viable black bear populations are the highly agricultural Central Valley and the

Mojave Desert, though young male bears have been reported moving through these landscapes looking for new home ranges.

Brown et al. (2009) evaluated the population genetic structure of black bear populations in California. They determined the genetic diversity of black bears in California is on par with other populations of bears in North America (Paetkau and Strobeck 1998, Woods et al. 1999). Furthermore, the northeastern California black bear population has increased enough to result in dispersal in Nevada. Lackey et al. (2013) used genetic analyses to determine the Nevada population of black bears came from California after >80 years of Nevada not having black bears. Today, Nevada's population is increasing at an annual average of 16%. These data not only support that California's black bear population is healthy, but that because some California habitats are at or above carrying capacity we are also acting as a source population for the neighboring state of Nevada. Moreover, CDFW veterinarian, Brandon Munk, hypothesized that the recently discovered bear encephalitis disease found in California could be a consequence of the basic principles of disease ecology (i.e., the population density could be too high).

Despite what the petitioner claims, CDFW is using the best available science to monitor black bear populations. CDFW has been collaborating with Universities and NGOs to develop DNA-based survey techniques to monitor black bear populations at regional levels. Fusaro et al. 2017 recognized the importance of obtaining these metrics and executed the first DNA-based population survey of black bears in California targeted to obtain regional population estimates. Mr. Fusaro's project in Mono County was used to guide studies in San Luis Obispo County, Monterey County, San Bernardino County, and Modoc County. Results from the San Luis Obispo and Monterey study can be found in an internal CDFW report (Sherman and Ernest 2015). Furthermore, Dr. Jared Duquette is conducting research in collaboration with Humboldt State University, Safari Club International, the Integral Ecology Research Center, and CDFW to help elucidate black bear demographics in northern California. This study is evaluating three methods of monitoring black bear abundance to help guide managers with which method is the most efficient and cost-effective.

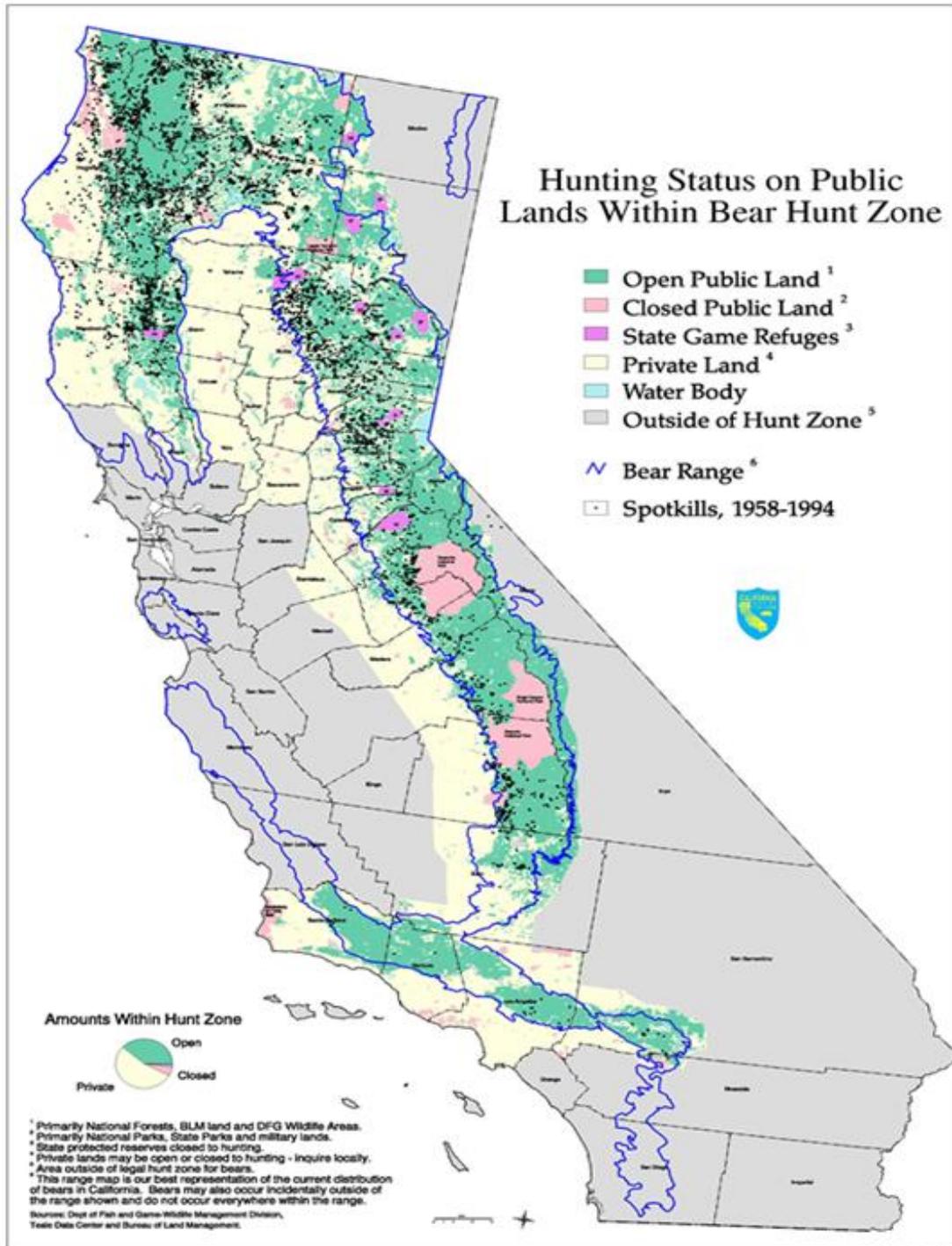


Figure 2. Hunting Status on Public Lands within Bear Hunt Zones adapted from the CDFW website.

The petitioner claims that wildfires, climate change, poaching, depredation, and roadkill have contributed to such dramatic declines in bear populations, that bear populations cannot sustain any increased mortality from hunter harvest. However, there is no scientific evidence that supports the petition's claim that the black bear populations in California are not at levels that can be sustainably harvested. Should the science show that California's bear populations could not sustain hunter harvest, the undersigned conservation organizations would be in support of a halt of bear hunting.

We recognize climate change, drought, and wildfires will have an impact on wildlife in California, including black bears. We agree with the petitioner that CDFW should monitor the effects of these landscape level changes on the health of our black bear population. In fact, CDFW did conduct an analysis in 2011 that looked at the effects of climate change on California black bear distribution over the next 100 years (CDFW 2011). The report states "although optimal bear habitat is predicted to shift toward the coastal ranges, much of the current bear range will still be considered suitable habitat and may support a viable and healthy bear population." The same document reports a conservative estimate of 56,110 square miles of suitable bear habitat in California. The recent wildfires in California have burned three million acres or 4,687.5 square miles. Assuming all the burned habitat was suitable bear habitat then only 8% of suitable habitat in the state was burned. Certainly, some bears have died as a result of the wildfires either directly or from vehicle collisions while attempting to move out of burned areas. Yet, the scientific information we presented clearly shows black bear populations can sustain some level of decline in California considering many populations are thought to be at or over carrying capacity.

Despite the loss of individual bears due to the wildfires, wildfires may improve bear populations over the long-term. Bears are highly mobile and will move out of burned areas to find food if needed. Male and female bears moving into new home ranges could benefit the state bear population by improving genetic heterogeneity (Brown et al. 2009). Burned areas are also known to attract bears that are searching for protein rich insects living in fallen woody debris. Bears feed primarily on grasses when they emerge from their dens. Wildfires help restore meadow systems by reducing encroachment by trees and brush thus increasing available grass for bears (Ecology 2016). In addition, fires can stimulate regrowth of degenerative berry patches, which is also a major food source for bears (Souliere et al. 2020). Furthermore, the high level of precipitation received in the Sierra Nevada Range this year should provide a respite from the drought and assist with regeneration of beneficial vegetation.

The petitioner's claim that poaching, depredation, and roadkill are also dramatically reducing bear populations in California is not supported by scientific evidence. Their claim that poaching of bears equals that of legal harvest in California is from an outdated 1982 report (Sitton 1982). No recent reports have documented poaching of bears in California as being a serious threat. Threat of population decline from depredation is also not a major concern. Current CDFW policy requires non-invasive techniques be used for mitigating human/bear conflicts. As such, although human/bear interactions have substantially increased to the point where CDFW has recently hired "Human/Wildlife Conflict Specialists" to help mitigate human/bear conflicts, euthanasia of nuisance bears has dramatically decreased.

Roadkill of bears has increased as a result of drought and wildfires causing bears to cross roads more frequently. However, California is making great strides to catch up with other western states to construct wildlife crossings. Wildlife crossings are known to reduce roadkill by as much as 85% (Forman et al. 2003). Governor Newsom signed SB 790 in 2021 that gives CDFW the authority to issue mitigation credits to California Department of Transportation thus making construction of wildlife crossings more economical. The federal Infrastructure Investment and Jobs Act of 2021 provides \$350 million over the next five years for a competitive grant process. Caltrans can apply for this grant to build more wildlife crossings. Recognizing the need for vehicle/wildlife collision data to inform the best placement of crossings, Governor Newsom also signed SB 395, the "Wildlife Traffic Safety Act" in 2019.

Finally, the petitioner claims black bear hunting is unpopular amongst California residents. By all appearances, the source for that information was a poll with carefully engineered questions designed to result in their chosen outcome. However, the speed at which the State Senator Scott Wiener – due to sweeping public outcry – withdrew his Senate Bill 252 which would have banned bear hunting statewide is a more accurate indication of Californian’s strong support for bear hunting. In fact, participation in all hunting has increased across the nation since the COVID-19 pandemic. Non-resident bear tag sales in California increased by a total of 36.6% from 2019 sales with resident bear tag sales increasing by 9.4% over 2019 sales. Hunting bears has become more popular in part because TV shows, such as “MeatEater” and social media influencers who focus on hunting have educated people on how good bear meat is to eat, offered many delicious recipes and other foodstuffs for bear meat, and touted the benefits of rendering bear fat. On a related note, the petitioner’s claim that bear hunting is just for a trophy is unsubstantiated, as California law requires all hunters to bring out all meat from a harvested bear.

Hunting bears is a part of California’s culture and heritage and is an important part of CDFW’s ongoing hunting recruitment, retention, and reactivation (R3) efforts to maintain and increase the number of Californians in the outdoors. Contrary to what the petitioner says, just because there are not a lot of people who take part in harvesting bears does not warrant removal of that privilege. Continuing to harvest bears will not only provide CDFW with the important hunter harvest data necessary to ensure the long-term health of California’s black bear, but also the critical annual funding to perform that research.

The undersigned conservation organizations are unified in our support of the North American Model of Wildlife Conservation, based on the Public Trust Doctrine. Wildlife management and the discharge of wildlife policy must be founded on science and guided by the professional biologists at CDFW. The North American Model and its science-based approach have created the most successful wildlife conservation system in the world restoring the health of hundreds of species.

We are confident that CDFW would agree that Petition 2021-027 is intentionally inaccurate and misleading. CDFW is using the best available methods and has ample science to demonstrate California’s black bear populations are currently in excellent condition. Yet, as wildlife conservation organizations we strongly support and have encouraged CDFW to update the 1998 Bear Management Plan and fill the vacant Statewide Black Bear Coordinator Position.

Again, the undersigned thank for the opportunity to provide comment on Petition 2021-027. Should you have any questions or would like to discuss any of the information we provide with you further, please contact Bill Gaines at (916) 337-9031.

Sincerely,

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Don Martin, President  
California Chapter – Wild Sheep Foundation

Dan Whisenhunt, Chief Executive Officer  
California Deer Association

Keely Hopkins, Western States Coordinator  
Congressional Sportsmen's Foundation

Fred Harpster, President  
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Mark Hennelly, Vice President of Government Relations  
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Steve Miller, President  
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Gary F. Brennan, President  
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James Stone, President  
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Ms. Melissa Miller-Henson, Executive Director, California Fish and Game Commission  
Mr. Chuck Bonham, Director, California Department of Fish and Wildlife

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