

PUBLIC COMMENT ON DRAFT MOUNTAIN LION CONSERVATION STRATEGY

The public comment period ran from October 17, 2018 to January 15, 2019 and we received 227 comments.

Survey Monkey Comments (215).....1

Email/Letter Comments (12).....49

215 Tom Radandt Libby MT This plan uses the best science available. It will improve the way we manage lions as a renewable resource. Implement the plan as purposed.

214 michael colpo lazy j bar o outfitters big timber MT First as a Montana sportsman, roundsman, and outfitter that does offer lion hunts in region 5 I am in support of the science and conclusions of the conservation strategy and monitoring program as it pertains to the eco regions 3,4,5,6 and 7. I oppose the proposal eco region 2 the elimination of the hybrid method that is a fair and effective tool for balanced participation and non resident opportunity and should be implemented in region 1 instead of the draw method that currently exist. I also oppose any references or summations that conclude that the outfitted non-resident participation is to blame for the imbalance or social issues that the outfitted hunter whether it be resident or non resident. The numbers show less take by the outfitted non resident compared to the non outfitted non resident. I oppose the further migration to a permit system for districts for districts within regions and applying to new regions. I oppose further permit stratification by sex, reason we all know the vast majority of cat hunters don't want to take females and by doing so by permit and trying to force female take has not had any significant impact as hoped in region 1. I also oppose for the reason of Morphing current HDs into super eco-region districts resulting in the redistribution of existing priority use permits currently owned by outfitters. This redistricting needs to take this into account before the lines are official. The way that FS permit lines are drawn doesn't allow for much adjustment putting the outfitter at a disadvantage. Thanks to the Commission for taking this under advisement.

213 Ryan Castle Clyde Park MT As a long-time resident of Montana, I am in complete support of this proposal to monitor our state's mountain lions. The proposal is unprecedented and is an incredible opportunity to understand mountain lions in a way that hasn't been before. The design of the plan, in creating ecoregions rather than using the typical administrative regions, is unique among many wildlife programs as they have been determined by the habits of lions. In essence, this is a monitoring plan for mountain lions, created by mountain lions. What could be better?

212 Jessianne Castle Clyde Park MT I am in full support of this proposed mountain lion management strategy and request the Commission to approve its adoption. In a changing world, one faced with a changing climate and increasing human presence in which many cat species around the world are in decline, it would be an entirely missed opportunity if Montana does not seek to monitor mountain lions long term. As a thriving species, this monitoring might help wildlife officials better understand how wildlife is changing and adapting overall. This plan is also an opportunity to forge ever stronger relationships with the public, by serving to aid wildlife managers in setting harvest quotas with complete transparency and scientific information. As a lifelong resident of Montana, I support this proposal.

211 Scott Cargill Montana Mountain Lion Adventures Whitehall MT Dear commissioners My name is Scott Cargill I have ran dogs for 20 years, been the former president for Montana State Houndsmen Association, current board member for the MSHA as well as current board member for MOGA. I have seen the plan in its entirety read if cover to cover and attended 3 presentations by mr. kolbe. I make the majority of my living perusing mountain lions around the state of MT and am very familiar with all season types and structures. In my very experienced opinion I would and do support this plan based on its science, data, and overall structure. This plan gives a good start and solid foundation for future lion management. I support the plan as written for region 3,4,5,6,7. I do NOT think this is the time for allocating measures. I do not think the Outfitter industry has had enough involvement for this plan to make the recommended season types recommended for each region. This plan eliminates the hybrid season in region 2 this season type is necessary when permits are involved to reach harvest objectives that is why it was created. I also want to point out that Non guided Non Resident hunter harvest makes a huge impact on quota based hunting districts an example is in region 4 in 2015. Outfitted lion harvest was 1 Non Resident outfitted harvest was 13. The outfitters are not a problem the "illegal outfitters" coming from other states are a problem. In the future it's absolutely necessary to look and regulate non guided non residents. The plan talks in depth about regulating non resident opportunity that wording needs to start with Non Guided Non Resident. I have guided in Idaho and in a normal year in MT I'll guide for up to 4 additional outfitters as well as chase locally and I see non guided non residents all over. Ask yourselves why any resident would want a Non Resident to bring their own dogs into the state unlimited for \$320 and be competing with local Houndsmen. You will find those that support this typically have a "friend" who is just paying a little dog food. In closing I support the plan and I am very educated on every aspect of it. I do support the recommendations for region 1 and 2 in the plan and I would like the commission to first look at restricting Non Guided Non Residents before restricting non residents as a whole. I do support the recommendations for region 3,4,5,6,7. Please feel free to call with any questions regarding the original plan draft or any statistics from 1998-2015 for region 3. Thank you for your hard efforts and time. Scott Cargill. Montana Mountain Lion Adventures. (406)491-1818

210 Patrick Tabor Jr. Swan Mt Outfitters Swan Lake MT I generally support the science and conclusions of the conservation and monitoring program being proposed by the Department. However, I firmly believe that ALL references to resource allocation ought to be stricken and allow this document to serve as a science based strategy. I would also encourage the Commission to remain mindful of the Outfitters importance in meeting harvest objectives. Once the report is edited to remove allocative references I will support this effort as a research and management strategy. Thank you,

209 Neil Jacobson Bear's Paw Bows Lakeside MT Region 1 Ungulate populations are a disgrace. While there are several different reasons why like length of season land management etc. there are just way to many predators on the landscape. Recent statements by FWP biologist stating there are over 3 times as many lions as wolves on the landscape. We need to reduce lion numbers now. Quite caving into one special interest group after another and start bringing back our ungulate populations. The current permit system is not working.

208 Austin Sweeney Lewistown MT I think that the new mountain lion management strategy is a great thing and it will definitely help Montana fish and game get a way better count on our lion population. I would also like to see the (season type 3) put into effect. I think that nonresidents should be able to come to Montana and hunt lions but they need to be limited on what they can kill. Thanks for all your time and effort put into this new management plan.

207 Mac Minard MOGA Clancy MT "To: Montana Fish Wildlife Commission From: Mac Minard, Executive Director Montana Outfitters and Guides Association Date: January 14, 2019 Re: MOGA Comments on Mountain Lion Monitoring and Management Strategy Draft Oct. 2018 I. Executive Summary MOGA has conducted an in-depth review

of the Mountain Lion Monitoring and Management Strategy Draft released in October 2018. Because of the exhaustive nature of our review we have elected to add this Executive Summary of the key points we make in the following comments. • We generally support the science and conclusions of the conservation strategy and monitoring program • Believe any references left in the report regarding allocations are inappropriate and are not properly researched and vetted. Report fails to articulate the impact of unregulated non-resident houndsmen and their role in creating social tensions •

MOGA believes there should be a table comparing lion harvest quota and actual harvest by year and Region as a means to understand management precision. • The Report is silent on how error terms related to abundance estimates will be utilized in developing ecoregional harvest levels and translated to Regional Harvest strategies. MOGA believes this a major technical oversight. Management systems based on point estimates rather than ranges implies a level of technical certainty that is not actually present. •

If report extracts allocation conversations, MOGA will support at Commission and Legislative funding level. II. The Process • Department Presented Draft Mountain Lion Monitoring and Management Strategy (MLMMS) to Commission Oct 17, 2018. This document is to be a detailed strategy the Department will employ to monitor mountain lions in Montana should it be approved. •

Commission approved MLMMS to be released for public comment • The approved document is released as a 139-page document • Comment Period announced and will close 5:00 pm January 11, 2019 • Final Commission Action is expected during the February 2019 Commission Meeting III.

Key Principles of the Draft MLMMS • Establishes four Ecoregions of similar habitat within which lion populations are expected to perform similarly; northwest, west-central, southwest (they do not mention the fourth) it is assumed to be eastern. • Expected to conduct genetically based Spatial Capture-Recapture (SCR) estimates of lion abundance in each ecoregion. • Abundance estimates are inputs to an Integrated Population Model (IPM) that will presumably allow modeling of different lion harvest management strategies. • A second, and separate, exercise will follow the adoption of the MLMMS that will address the thorny issues related to establishment of management objectives and season structures necessary to attain the stated objectives. Because those decisions are highly allocative, they are not appropriate in the MLMMS document. IV. Evaluation of the conservation and management guidelines that will direct FWP's decisions On page 5, the document outlines 10 statements of policy believed necessary and which would guide recommended management approach. The only statutory mandate the Department has, and therefore the only legally binding mandate, is to manage mountain lions in a sustainable manner in the public trust. It is unclear where these "guidelines" come from and it must therefore be assumed they are internally generated. They are generally written as value statements. Our specific comments follow: "FWP recognizes that mountain lion hunting is a highly valued recreational pursuit and that hunting plays a critical role in maintaining public advocacy and tolerance for the species. FWP will therefore manage for limited and sustainable mountain lion hunter-harvest opportunity on most lands within its jurisdiction. FWP will allocate hunting opportunities and experiences fairly among Montana resident, nonresident, and outfitted mountain lion hunters using simple and consistent regulations." There are several fundamentally flawed assertions in this statement and several debatable issues as well. • The combination of "limited and sustainable" is unnecessary. We recommend it read "sustainable" • FWP DOES NOT ALLOCATE hunting opportunities and experiences among Montana residents, non-residents and outfitters. That is an authority EXPRESSLY and singularly granted to the Fish and Wildlife Commission. The application of this erroneous concept throughout the document MUST be addressed. This strategy is a recommended science-based approach for monitoring mountain lions (the purview of the Department); it is not an allocative plan and all references to allocation contained in the plan must be removed for it to actually be a Monitoring Strategy. "FWP will use an adaptive harvest management framework to develop and evaluate most mountain lion management decisions." • Adaptive management is the applied systematic approach for improving management precision (e.g. attaining stated objectives) by learning from prior management actions and outcomes. Adaptive management as described here is infrequently implemented, even though many resource planning documents, like this one, call for it. The reason for that is that the true application of adaptive management requires management practices be implemented to test their effects (experimental

management) on outcomes which are purposefully both positive and negative. The Commission will likely not want to “experiment” with management expected to produce a negative outcome and therefore is not really applying Adaptive Management but rather using it as a buzz phrase. We recommend deleting this paragraph. “FWP will maintain a balance between mountain lion populations, their prey, and humans by directing local harvest of mountain lions, if and as needed, to manage prey survival and reduce human-lion conflicts.” This statement expressly, and correctly, includes consideration of prey species in the approach to managing mountain lion harvest. We support this affirmation and have attached the MOGA position statement on Predator Management to help reinforce this applied practice. We do not believe, and do not support, the notion that mountain lions can be managed in a single species consideration.

V. Comments on Executive Summary Page 7. An adaptive harvest management process will guide most of Montana’s mountain lion harvest decisions. FWP will work with the public to develop clear and measurable population objectives at the ecoregion scale, as well as hunting seasons and harvest prescriptions that are most likely to meet those objectives. • This statement is an example of the insidious way FWP staff assume a responsibility granted to the Commission. It is the Commission that will establish objective and adopt harvest strategies not FWP. FWP could work with the public to recommend to the commission certain actions. “Although overall management objectives and harvest prescriptions will be developed at a large (ecoregional) scale, harvest limits will generally be distributed across an ecoregion’s lion management units to address social concerns, reduce hunter crowding, and focus or limit harvest where needed”. • This statement is baffle-gab, simply state that sustainable harvest strategies will be employed to provide diverse hunting experiences. Again, this whole paragraph belongs in a different document. It has nothing to do with developing a robust and scientifically sound monitoring strategy. Our recommendation is to delete it.

VI. Chapter 1. Mountain Lions in Montana This is a well written section with useful information helpful in understanding lion population dynamics. Take home messages: • Montana has highly productive lion habitat • Lions pose little risk for disease and parasite transfer to humans • Harvest can affect population size and rate of growth • Over-harvested and depressed lion populations can recover rapidly • Harvest can affect age structure • Mountain lions are the most influential ungulate carnivore across much of the state • Wildlife managers must carefully consider the potential effects of mountain lion predation on prey populations when developing management prescriptions for both. • Attempts to locally reduce mountain lion populations will likely be confounded by the effect of immigration.

VII. Chapter 2. Mountain Lion-Human Conflict Another general information chapter that is interesting but of questionable value in a strategy document such as this. Take home messages: • 87-1-217. Policy For Management Of Large Predators (protect, safety of the public during outdoor recreational and livelihood activities, and preserve citizens’ opportunities to hunt large game species. • Capturing and relocating habituated, aggressive, or depredating mountain lions is not an effective strategy • Mountain lions were confirmed to have killed an average of 136 head of livestock in Montana annually between 2006 and 2015 • The rate of livestock loss may be partly a function of an area’s mountain lion density • Hunter harvest that maintains mountain lions at moderate densities may be a useful tool in managing livestock predation in some circumstances

VIII. Chapter 3. 2016 MONTANA MOUNTAIN LION RESOURCE SELECTION FUNCTION Take home messages: • Managers need accurate spatial data that depict mountain lions’ use of their habitat in order to predict lion abundance and to monitor their populations over time • A Resource Selection Function (RSF) is a statistical model that represents the relative probability that an animal will select a particular place or resource • The most important measure of a RSF’s utility is its ability to predict a species’ use of available habitat • RSF will be used to define distinct mountain lion ecoregions and is fundamental in the development of abundance estimates. • RSF does not describe all the variables that affect mountain lion distribution or abundance and must therefore be reevaluated periodically.

IX. Chapter 4. Montana Mountain Lion Ecoregions This chapter makes the case for larger scale ecoregions. We see signs of conflating the term “accurate” for what might be better described as “precise”. In population estimation we are concerned with both parameters of accuracy and precision as one without the other is an incomplete presentation of the estimate. This chapter also introduces the

notion that ecoregions will cross Regional Boundaries and ecoregion management strategies will be general; increase harvest, decrease harvest, maintain harvest. These decisions will be made in cross Regional collaboration and review. Detailed harvest management will remain at the LMU level and will be determined by the Regional process. The aggregate of the accumulated harvests across regions will theoretically match the ecoregion objective. Take home messages • Mountain lions currently occupy nearly all their suitable habitat in Montana. • Mountain lion harvest management is most effective when it's done at a large and biologically meaningful scale • FWP considered four factors when identifying individual mountain lion ecoregions: contiguous LMUs with similar RSF values, Large enough to account for internal lion metapopulation dynamics, well distributed and represent the range of Montana lion habitat types, and the total number of ecoregions is limited so that monitoring can occur frequently • 4 ecoregions will be the basis of Montana's mountain lion population monitoring program • FWP and the public in two or more FWP administrative regions will periodically collaborate to develop certain general population objectives for each ecoregion addressing objectives of a moderately positive, negative, or stable population growth rate over the following 6 years. •

Detailed management strategies would be developed at the LMU level. X. Chapter 5. Monitoring Mountain Lion Abundance (Page 43) The chapter again opens with a call for accurate information and leaves off the need for precise estimates. The failure to address precision will lead to a system where point estimates, rather than ranges, will drive management decisions; implying a level of understanding that is not correct. This can lead to unnecessary actions and erroneous conclusions of cause and effect. Much of the chapter is dedicated to the lack of utility that "indices of abundance" have in setting and evaluating management strategies. They generally are too insensitive to detect short term changes and are useful only over longer timeframes. Essentially building the case for a more expensive and more robust estimator of abundance. It is commonly known within the scientific community that indices of abundance, often collected as a cost-effective segregate for intensive abundance estimation, are unreliable and imprecise. Yet managers will gravitate to them in the absence of any other parameter, even though they have been proven to be statistically irrelevant. • Developing a method to obtain regular, accurate, extensive, and affordable estimates of the size of lion populations has been one of the highest priority mountain lion management needs. (Note: regular, accurate, extensive and affordable are almost always mutually exclusive) • When potential indices of abundance were formally compared to known populations, the indices often proved too insensitive to be useful management triggers. (Note: very common in resource management, yet managers will continue to rely on flawed data in the absence of anything else. This is the case in this report where on pages 43 and 44 a detailed assessment of "population densities" changes is offered based on a host of unverified indices. If these indices/estimates were sufficiently sensitive to make these assertions, then why do we need a new monitoring strategy?) •

Relying on past years' harvest to inform future quotas is also problematic. This "sledgehammer approach" • Harvest indices are also much less informative in jurisdictions, like Montana, where most harvest is limited by sex-specific quotas • Long term capture and radio-telemetry studies were traditionally considered to be the most reliable way to estimate local lion populations but are too expensive, time consuming and resource intensive. • The recommended approach in this strategy is to periodically monitor the size and trend of lion populations in the Northwest, West-central and Southwest ecoregions. These periodic ecoregional estimates will allow managers to track changes in mountain lion abundance over time and will be included in the Integrated Population Model to predict the effect of future harvest prescriptions • Spatial capture-recapture (SCR) method specifically addresses the shortcomings of traditional CR techniques when working with wide ranging, low-density species. SCR has been successfully used to estimate carnivore populations • This chapter makes the technical case for the SCR but fails to address the error terms in the estimates and incorrectly portrays SCR estimates as more accurate without any basis for that assertion. XI. Chapter 6. The Montana Mountain Lion Integrated Population Model (page 50) This Chapter introduces another techno term, the Integrated Population Model or IPM. The IPM is a tool that combines available information about a mountain lion population (i.e. harvest, abundance, survival, and reproduction) into a single analysis of that population's demography. The purpose of the IPM is to make predictions about future population trends based upon

past harvest management actions and population response Take Home Messages: • The Integrated Population Model is a tool that combines all available information into a single analysis of mountain lion population demographics • Page 51 is the first place in the report that acknowledges the uncertainty associated with data inputs into the predictive models such as the IPM. While we are left with the assurance it will be incorporated, we are also told that “The lion IPM allows for a straightforward application of expert knowledge even when specific information about local or contemporary populations is sparse.” Meaning that in the absence of data professional judgements or guesses can be substituted. •

The IPM uses Bayesian statistical methods which is appropriate and not uncommon. • The model generates reasonable estimates of parameters (survival by age and sex class, recruitment and age at maturity) managers cannot directly measure based on the range of values researchers have previously collected in the field. This is a common application of research findings. • Mountain lion mortality, unlike many other game species, is not compensatory. That is, harvest doesn’t reduce the probability of animals otherwise dying and changes in a population’s harvest rates don’t significantly affect the surviving individuals’ fecundity. • In much of Montana hunter harvest is the most likely cause of lion mortality. • IPM will allow hindcasting of prior population sizes based upon estimated survival rate, mortality rates and documented harvest. The report lacks a section on sensitivity analysis where estimated error terms are incorporated into the model to demonstrate the precision of the estimates. We find this to be a consistent technical flaw in the presentation. XII. Chapter 7 Mountain Lion Harvest Regulation (page 56). This chapter rightly opens with a statement of inconsistent harvest management strategies developed over a 45-year period based on arbitrary Regional boundaries, regional staff preferences and a decentralized system of developing sound harvest management policies. While it offers a chronology of regulatory change, it quickly deteriorates into a values-based assessment of justification and completely fails to offer an assessment of management error as calculated by the difference between stated harvest objectives and realized harvest. These data, more than others, inform the Commission and the public as to the efficacy of the highly divergent Regional management approaches. The portrayal of the social issues that drove regulation changes over time are anecdotal at best and woefully incomplete. These statements stand in stark contrast to the well documented and referenced scientific discussion preceding this Chapter. While there were several “bad actors” in the outfitting community the burden placed upon the outfitting community is grossly overstated and completely omits reference to the massive growth and impact of non-resident hound handlers and the illegal outfitting that is a product of that activity. The reference to Model Harvest Regulations and the determination that these, and only these, will form the basis of the approach to managing harvest. The reference to Hybrid seasons are omitted and need to be included. Recommendations: 1) Redraft this Chapter to be a clean chronology of regulatory changes without all the allocative and judgmental statements which are beyond the role of the Department. 2) Add an analysis that provides a table of management precision by Region. Present the harvest objective and the realized harvest by year for each region. These data, more than others, inform the Commission and the public as to the efficacy of the highly divergent Regional management approaches. This analysis needs to be provided region by region. 3) As a research plan this report does not benefit from discussions of Harvest Season Setting, Legal Authorities or Model Harvest Regulations. In fact, these sections take what is presented as an objective scientific approach to estimating sustainable mountain lion harvest and presupposes and then limits what management prescriptions will be considered. Allocative decisions are included within these sections, including the omission of highly successful Hybrid season approaches, are not for the Department staff to determine, this is unequivocally the purview of the Public and the Commission. MOGA will not support the funding of this program if references Harvest Setting Seasons and Model Harvest Regulations are a part of it. These references are an entirely different set of discussions and simply do not belong in a research plan such as this. XIII. Chapter 8. Adaptive Harvest Management (page 61) This Chapter heralds the benefits of adaptive management, a process of management that has been in use for decades. It is the MOGA position that much of the gridlock and antagonism that has defined mountain lion management in Montana is partially attributed to Department staff who seek, and are permitted, to overlay their personal values on allocative decisions regarding lion harvest strategies. A case in point, is

the elimination of Hybrid season structure within this document. This is not a decision of the Department but one between the public and the Commission. In the section addressing the basic steps of adaptive management; we believe the sequence fails to address the one objective statement that the management system has control over; estimated sustainable harvest. Given an abundance range as stated in Step 2 – Setting Objectives, it is imperative that it be accompanied by an estimated level of sustainable harvest reported as a range as well. It is only harvest that we can directly manage and monitor. Harvest management influences our ability to attain population levels. We find it somewhat odd that the abundance estimates are purposefully developed on an ecoregional basis as are the population management objectives, but the process of managing for those objectives revert to the old Hunting Districts when Management Alternatives are developed. This is inconsistent with the entire lead up to why the ecoregional assessment approach is favored. Recommendations 1) Incorporate a stated harvest objective as a companion to the stated abundance objective. Both need to be stated as a range that reflects the precision (incorporates the error estimates) of the estimate. 2) To follow the basic premise of the proposed monitoring strategy, management units need to be as large as possible and likely cross-regional. Small HD quotas and nuanced management approaches ought to be avoided to remain consistent with the premise of large landscape management. XIV. Chapter 9 Regional Management Considerations This chapter opens with a confusing statement that “it is important to recognize the social and biological issues that are unique to each FWP administrative Region”. This suggests that there are biological differences between mountain lions across regional boundaries which the preceding 50 pages of this document suggested there were not, leading to the ecoregional approach. This appears to be a very thinly veiled attempt to maintain Regional Control in a system that does not benefit from it. We either are moving to landscape management or we are not. Application of this management model dictates that Regional control give way to cross regional management strategies. Region 1. The summary in this section of the document is a sad history of targeted execution of the non-resident hunting opportunity that has led to an inability to harvest the sustainable level lions and has profound negative economic consequences for communities and businesses. The scientific basis for this castration was never explained or documented and the social motivations were never verified. Emotional management best characterizes the harvest policy established for this region since 2005. The level of staff advocacy favoring resident over non-resident hunters is unacceptable and while perhaps locally popular has led to some serious losses in hunting opportunity in the face of significant biological surpluses and the largest management error in the state (measured as harvest quota vs actual harvest). Statements like: “Region 1 will recommend season types that effectively limit nonresident hunter harvest, where necessary, to maintain a high-quality hunting experience for resident mountain lion hunters.” is an example of just how incredibly involved the Department staff have become in purely allocative decisions; decisions that are strictly and solely the responsibility of the Commission. The Department needs to focus on identification of the sustainable surplus and leave the allocative advocacy to the user groups and the Commission. The consequence for not doing that is continued erosion of the Departments credibility as an objective and science-based organization. Region 2. This section provides insight into one of the most effective tools the Commission has provided to balance the desire for a high-quality hunt experience with the ability to harvest the identified surplus using the Hybrid season. It is unequivocal that without outfitted clients (resident or non-resident) hunting during the hybrid season lion harvest quota will not be attained. Again, statements like: “Region 2 will recommend season types that effectively limit nonresident hunter harvest where necessary to maintain a high-quality hunting experience for resident mountain lion hunters” are completely beyond the mission of the Department and indicates just how deeply rooted the non-resident bias exists within some staff. Reference made to “unlimited non-resident participation” reflects a true lack of understanding by the authors of the Federal Permitting process that outfitters are subject to. Rigorous standards of use levels are controlled under the Special Use Permits issued by Federal agencies. In areas like Region 2 that are predominantly Federal Public Land, these restrictions are real and have a material effect how many clients may be served. Outfitted non-resident use is tightly controlled. Left completely uncontrolled are the non-resident hound handlers, many of whom are operating as illegal outfitters. The deletion of the hybrid season as a management

strategy is beyond the scope of the Departments responsibility and is a product of the intense non-resident/outfitted client that persists within the Department. Region 3. Region 3 is historically a region that has simple set of regulations and a more precise level of management attaining harvest quota far more frequently than in either regions 1 or 2 prior to the hybrid season. Region 3 correctly omits reference to Department recommendations relative to resident and non-resident allocation. Region 4. It is somewhat ironic that a stated position would be "Region 4 will recommend the least complex harvest regulation that will allow management objectives to be met". Does this mean other regions are going to recommend something other than the least complex regulations to get the job done? Region 5 No Comment. Region 6 No Comment Recommendations 1) Redraft this section and extract all the allocative references and advocacy and focus on the Departments role to conserve resources and provide opportunity to harvest lions in a sustainable manner. Leave the allocative decisions to the Public and Commission. 2) Include reference to adjusting lion harvest levels to manage depressed ungulate populations. As referenced in Chapter 2 under 87-1-217. Policy for Management Of Large Predators "

206 Shawn Ray-Delmas Libby MT Please provide a list of the harvested lions to support the rumor that the quotas have been met. The "FWP believe the quotas were met" does not validate actual numbers harvested.

205 Dwayne C Garner Missoula MT I am writing to comment on mountain lion management. The ungulate population on public land is a disgrace. One of the reasons is the length of our hunting seasons and another is too many predators and the lion is one of the main culprits. For every 5 year old lion the general season hunter is expected to donate 250 deer or equivalent. That's 50 happy general season deer hunter per year for 5 years for 1 lion hunter that may not even harvest it. Yet lion hunters continue to demand more lucrative seasons for themselves. They are just another special interest group that represents very few. Excessive predators on public on public land is one of the reasons we are having private land issues. We have management numbers for elk and in some cases there is little to no private land in the area. I want management numbers for bears, wolves and lions. Seasons would be liberalized till these numbers are met. These numbers would be determined by ungulate populations and hunter comment.

204 Miles Hutton Hutton Ranch Turner MT I think we could stand larger quotas in all of the state, but especially in Region 6.

203 Tim Ravndal Redoubt News Townsend MT Working to make sure that the process is before the people in advance of decisions being made is essential to proper wildlife management. Many times, the deals made behind closed doors or the narratives that are espoused by the mainstream media only provide the social sound bytes. If the people are to be properly engaged in the process of wildlife management the people on the ground need to have the lead. In this case, the Montana Houndsman Association has been at the table for many years working to develop sustainable lion populations. Matching prey with prey base is essential for all species being managed. It was once said by Sandy Salee that; "Managing one species at the expense of another is not the way to do it." We hope the truth in management is placed at the top of the decision process. This is going to the department a couple days late, because many people did not know about this comment period or the details behind the proposed action. Please include my comments in the process. Ps; I am also an avid houndsman that has been involved in the proper management of Mountain Lions for over 30 years. I participated in the 1995 establishment of the Mountain Lion EIS. I could go on, but I respect the deadline for participation has passed and on behalf of the people of Montana I would like to remain on the front lines to keep the people informed.

202 Kenneth. Roy Hobson MT It's gett to the point that the nonresident are taking over the mountain lion hunting they should be put on a drawing for the region they want to hunt and only so

many tags given out to them by percentage of lions in that region your giving out tag and there coming out hunt were they want to close that region and moving on to another region calling there buddy that has tag tell them to come out and then fill there tags the reason this is happening is that your not controlling it the people or guides that are doing this then go back to there state collect all his money for the cats he got and waits for the next year and the hound handler that live here work all week pay taxes spends every penny he has in MT get to hunt on the weekend and the region he runs is closed because the nonresident has taken the cats

201 Donny Roy Lewistown MT The nonresident have over ran the forest service and the BLM lands. Making plan 3 the only option for Montana cat hunters. It has become a problem with the permit system in the western part of Montana and nonresident bring unlimited hunters week after week till the quota fills. Season type 3 is the only option. This will also put a end to any illegal outfitting going with nonresident that live in Montana for the winter season and have other nonresident come in week after week. Season type 3

200 Jake Billingsley Save The Last Mountain Caribou From Extinction Llano TX One of the vital parts of a Mountain Lion Management Strategy for Montana and the greater region is monitoring and management of Mountain Lion predation on Woodland Mountain Caribou. It is doubtful that the dwindling population of Southern Mountain Caribou in the Purcell-Yakk Range will survive or recover without protection from Mountain Lion predation. According to the Draft Selkirk Caribou Management Plan Nov. 2018, of the 84 kills of collared Selkirk Mountain Caribou in the past 30 years, 18 have been from Mountain Lion and only 2 from Wolves. Wildlife Biologists suggest that many of the 42 unidentified causes of a Selkirk Mountain Caribou kill are from Mountain Lions. The recent appearance of 2 Mountain Caribou in Montana represents the mega-migratory range of Mountain Caribou in the Montana, Idaho, Washington, B.C. and Alberta region. Efforts should be made to restore Mountain Caribou as regular inhabitants of their historic Montana ranges. Mountain Lion management is a crucial part of this recovery process. Respectfully, Jake Billingsley

199 Michael Sawaya Sinopah Wildlife Research Associates Missoula MT I think that this draft monitoring and management strategy is a great start towards a more effective, science-based conservation program for mountain lions in Montana. It's clear that MT Fish Wildlife and Parks put forth a tremendous effort in creating a very detailed and comprehensive document. The agency should be commended for their attempt to effectively manage a controversial species, along with their recognition of the inherent conservation value in mountain lions. As a wildlife biologist, I was particularly impressed with the ecoregion-based management approach that was outlined in the strategy and the innovative application of advanced population monitoring tools such as DNA-based Spatial Capture Recapture and Integrated Population Models. The combination of these two methods will be a big advancement for mountain lion population monitoring that will offer the state some interesting opportunities in the future for adaptive harvest management. My main criticism of the strategy is that it fails to give enough information on the genetic analysis methods while going into great details about the sampling methods and population models. Specifically, the strategy does not say exactly how individual mountain lions will be identified from DNA samples and it does not discuss a well-known issue with DNA-based mark-recapture projects, genotyping errors. This source of error and uncertainty needs to be included in the strategy if DNA-based mark-recapture is going to play such a large part in it. Genotyping errors can have very large effects on mark-recapture datasets so it would be good to at least present the issue for the sake of transparency and describe how it was addressed. As currently written, the strategy implies that individual identification is a determinate process with no uncertainty when these laboratory errors can be the largest source of bias in DNA-based mark-recapture estimates if not properly identified and removed. What protocols were used for the collection and analysis of the noninvasive samples (i.e., scat, hair)? What genetic markers (i.e. microsatellites, SNPs) were used to identify individuals? How did

the lab identify and remove genotyping errors? Are there citations for any of these genetic analysis procedures or protocols? Sincerely, Michael Sawaya, Ph.D. Sinopah Wildlife Research Associates

198 Colby Anton Gardiner MT On page 48 you write: "Because estimated abundances are spatially explicit, population abundances associated with habitat of a certain quality within a sampling area can be extrapolated across broad landscapes as a function of that landscape's habitat quality." However, there is no citation here. There is no evidence that monitoring a small area, as you propose, could be informative to the scale of an ecoregion. How will you test the efficacy of SCR models for extrapolating out to this large scale? Your SCR modelling seeks to address population estimation of independent adults. While this is a common approach, methods exist for understanding the full population, independent animals included using Bayesian methods like you describe. Given the tracking information you will gain from the field method, why are you not considering estimating juveniles? This could help inform recruitment rates and population trajectory. Further, your IPM seeks to obtain information for the population and includes age class differences. The model would be more robust if you were able to understand age-specific population densities as well. Your SCR model does not mention anything about genotyping and individual identification. This can and will be a substantial source of error in your analysis. It is essential that this plan outlines the laboratory methods you propose to use and how you intend to check and correct for genotyping errors. This will continue to be one of your major sources of error and must be addressed. The core of the trend monitoring area for region 3 is characterized by high elevations on the Gallatin crest. How do you propose accessing this on a regular basis? I think most houndsmen in this area would agree that they do not see this as feasible. It would be good for you to outline several of FWP's proposed locations for each ecoregion's rotating "Supplemental Monitoring Areas." If you had 3-4 proposed areas per region?

197 Mike Wood Kalispell MT I'm a hunter and obviously the deer and elk numbers are down, bad weather & predators. More lions need to be taken. Folks with hounds in most cases are just treeing them and letting them go. They are very organized and the more lions the better, so they can easily find a track and let the hounds go. Great sport but doesn't help deer and elk. How about bringing in more out of state hunters that will bring hounds and actually take some to cut down the population. Thank you

196 Megan Maier Bozeman MT Wildlife Division PO Box 200701 Helena, MT 59620-0701 January 11, 2019 To Whom It Concerns, As a Montanan and wildlife viewer, I feel privileged to be included in the decision-making process for how mountain lions are managed in our state. I remain steadfastly opposed to trophy hunting; however appreciate the adaptive management process, which includes continued evaluation and assessment of any mountain lion management. As Fish Wildlife & Parks (FWP) states in the Montana Mountain Lion Monitoring & Management Strategy Draft (Draft), hunter harvest is often additive to other forms of mortality (Draft, 7); it should therefore be limited – if allowed at all – to prevent unwanted and unnecessary population declines. Hunter harvest is not necessary for managing mountain lion populations. Mountain lion densities are ultimately regulated by prey availability (Pierce et al. 2000a, Logan & Sweanor 2001, Stoner et al. 2006). Further, hunter harvest is often additive to other forms of lion mortality and is often the most important factor affecting population size and growth in areas where harvest occurs. (Draft, 12) Mountain lion populations are particularly sensitive to changes in adult female harvest rate, meaning FWP should not allow hunter harvest of adult female lions. Additionally, kitten survival is the lowest of any age-class. As FWP notes, estimates of kitten survival are often biased high because dens are usually located sometime after birth occurs (e.g. Robinson et al. 2014) and kitten deaths between birth and when researchers discover the den may not be accounted for. (Draft, 52) Killing adult females further reduces the chances of kitten survival. Finally, although lion populations recover after heavy harvests, it can take years (e.g. five years after 50% decline from heavy harvest in the Garnet Mountains) for a population to recover. Hunter harvest is not necessary to boost prey (e.g. deer, elk) populations. Weather and forage availability are more likely

than predation to explain chronically low ungulate populations. (Draft, 17) The influence of potentially limiting factors, such as harsh weather and low forage availability, should therefore be evaluated before predation is implicated. Further, mountain lion predation is unlikely to limit adult elk survival. (Draft, 18) Additionally, mountain lions reduce the spread of chronic wasting disease (CWD), which is a growing epidemic in Montana. Mountain lion livestock depredation is low in comparison to wildlife consumed. Mountain lions were confirmed to have killed an average of only 136 head of livestock in Montana annually between 2006 and 2015 (USDA Wildlife Services, Table 3). (Draft, 21) Best practices, such as night penning, lights, and clearing brush around paddocks, can be used to reduce depredation risk. (Draft, 23) Hunter harvest should not be considered as a tool to decrease livestock depredation. In much of Montana hunter harvest is the most likely cause of mountain lion mortality. (Draft, 53) Between 2007 and 2016, trophy hunters killed more than 4,400 mountain lions in Montana. Hunter harvest is not an effective management strategy and is unnecessary for maintaining prey populations and reducing livestock depredation. Allowing the harvest of female mountain lions is harmful to their kittens, who already have a lower chance of survival. Allowing hunter harvest of adult mountain lions is also harmful to the population's sensitive social structure. The loss of adults encourages sub-adults, who are naturally less skilled at hunting, to immigrate, which causes increased conflict with humans and pets. Finally, hounding is an antiquated hunting method that is not supported by the vast majority of Americans. Using radio-collared trailing hounds to chase mountain lions into trees or rock ledges so a trophy hunter can shoot at close range is unsporting, unethical and inhumane. Montana is home to many ethical sportsmen and women who do not condone this violence. Many Montanans, plus the huge numbers of wildlife viewers who travel to our state, value mountain lions and see them as an indicator of healthy environments. Montanans would benefit from increased education about humanely coexisting with mountain lions, rather than increased hunter harvesting. Thank you for considering my comments, Megan Maier

195 Jennifer Danby Long Beach NY Thank you for giving thought to mountain lions and management. I would like to ask you to consider the following as you debate: Hunting is an ineffective and unnecessary way to manage mountain lion populations. Please find solutions that do not allow or promote hunting. Mountain lion populations are self-regulating and do not need to be hunted. It is cruel to hunt them and also disrupts the ecosystem, and because they self-regulate, it is wasteful and destructive. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Further, most people no longer support trophy hunting and believe it should be banned entirely. Please protect America's Lion. Thank you. Jennifer Danby, Ph.D.

194 Karen and Kent Cochran Livingston MT Please do not allow trophy hunting of mountain lions. Research here in Montana shows that killing mountain lions does not boost prey populations. Other options for protecting deer, elk and bighorn sheep are available and much more effective over the long-term. Other options for protecting deer, elk and bighorn sheep are available. Mountain lions are essential in helping wildlife managers reduce the spread of chronic wasting disease, a growing epidemic in Montana and beyond. Recent research suggests that mountain lions may be more effective at culling animals with CWD than hunters over the long-term. Killing mountain lions is also not an effective livestock protection tool. Even with widespread trophy hunting of mountain lions in Montana, the species is responsible for no more than 1% of unwanted livestock losses in the state each year. Other causes, like weather and illness, are a much greater threat to livestock. Montanans would benefit from increased education about humanely coexisting with these big cats, rather than increased their killing. Humane solutions are readily available for livestock operators to protect their animals and prevent the unnecessary killing of mountain lions. We have personally worked with the Tom Miner Ass. in education and demonstration of effective strategies to protect cattle and sheep. These efforts do work!

193 David Thomas Bozeman MT Hunting cats with dogs is not not good for dogs & obviously cats. I'm not against hunting cats but using dogs to tree cats is not ethical hunting to me.

Increase bag limits for bow hunting & make trophy cat hunters be real hunters so the poor dogs don't do all their work!! End cat hunting with dogs.

192 Amanda Cooper Belgrade MT I don't agree with trophy hunting mountain lions for a number of reasons. My dad is an avid hunter and would never kill an animal as a trophy....Killing adult mountain lions is harmful to their sensitive social structure. The loss of adults encourages sub-adults, naturally less skilled at hunting, to immigrate, causing increased conflict with humans, pets and livestock as well as increased infanticide on mountain lion kittens. Hounding is an antiquated hunting method that is not supported by the vast majority of Americans. It is harmful to mountain lions (including kittens), non-target wildlife, and the hounds themselves. Using radio-collared trailing hounds to chase mountain lions and bay them into trees or rock ledges so a trophy hunter can shoot at close range is unsporting, unethical and inhumane. Montana is home to ethical sportsmen and women and they do not condone this violence.Killing mountain lions is also harmful to entire ecosystems. These native carnivores provide a variety of ecosystem services, and their removal harms the complex natural processes that support other wildlife and their habitat. From beetles in the soil to the birds in the sky, countless species benefit from mountain lions and other native carnivores living on the landscape. Mountain lions are essential in helping wildlife managers reduce the spread of chronic wasting disease, a growing epidemic in Montana and beyond. Recent research suggests that mountain lions may be more effective at culling animals with CWD than hunters. The public values mountain lions and views them as an indicator of healthy environments while posing little risk to people living near them. Trophy hunting of mountain lions is not an effective tool to reduce livestock depredation. Trophy hunting increases complaints and conflicts with mountain lions, including with livestock. Killing mountain lions is not an effective livestock protection tool. Even with widespread trophy hunting of mountain lions in Montana, the species is responsible for no more than 1% of unwanted livestock losses in the state each year. Other causes, like weather and illness, are a much greater threat to livestock.

191 Carolyne Calvin Bozeman MT Please do not allow trophy hunting of mountain lions.

190 Terry Barch Choteau MT The depth and scope of the proposal are excellent. The concepts of "ecoregion" and "resource selection function" make sense when one considers the mobility and adaptive nature of this animal.

189 Jennifer Hickman Bozeman MT Please do not allow trophy hunting of mountain lions. Between 2007 and 2016, trophy hunters killed more than 4,400 mountain lions in Montana. This is not an effective management strategy. Trophy hunting of mountain lions is unnecessary as their populations are limited by prey and habitat; they don't need human intervention to regulate their numbers. Research here in Montana shows that killing mountain lions does not boost prey populations. Other options for protecting deer, elk and bighorn sheep are available and much more effective over the long-term. Killing female mountain lions is harmful to their kittens. These animals are highly dependent on their mothers well for up to two years. Mothers with dependent young are often killed by trophy hunters, leaving the orphans to die from starvation, dehydration, exposure or predation. Killing adult mountain lions is harmful to their sensitive social structure. The loss of adults encourages sub-adults, naturally less skilled at hunting, to immigrate, causing increased conflict with humans, pets and livestock as well as increased infanticide on mountain lion kittens. Hounding is an antiquated hunting method that is not supported by the vast majority of Americans. It is harmful to mountain lions (including kittens), non-target wildlife, and the hounds themselves. Using radio-collared trailing hounds to chase mountain lions and bay them into trees or rock ledges so a trophy hunter can shoot at close range is unsporting, unethical and inhumane. Montana is home to ethical sportsmen and women and they do not condone this violence.Killing mountain lions is also harmful to entire ecosystems. These native carnivores provide a variety of ecosystem services, and their removal harms the complex natural processes that support other

wildlife and their habitat. From beetles in the soil to the birds in the sky, countless species benefit from mountain lions and other native carnivores living on the landscape. Mountain lions are essential in helping wildlife managers reduce the spread of chronic wasting disease, a growing epidemic in Montana and beyond. Recent research suggests that mountain lions may be more effective at culling animals with CWD than hunters. The public values mountain lions and views them as an indicator of healthy environments while posing little risk to people living near them. Trophy hunting of mountain lions is not an effective tool to reduce livestock depredation. Trophy hunting increases complaints and conflicts with mountain lions, including with livestock. Killing mountain lions is not an effective livestock protection tool. Even with widespread trophy hunting of mountain lions in Montana, the species is responsible for no more than 1% of unwanted livestock losses in the state each year. Other causes, like weather and illness, are a much greater threat to livestock. Montanans would benefit from increased education about humanely coexisting with these big cats, rather than increased their killing. Humane solutions are readily available for livestock operators to protect their animals and prevent the unnecessary killing of mountain lions.

188 Penelope Maldonado The Cougar Fund Jackson WY " Thank you for the opportunity to comment on Montana's Mountain Lion Monitoring and Management Strategy. The Cougar Fund is a 501c3 organization based in Wyoming with members in all 50 states including Montana. 85% of our annual budget is dedicated to conservation education. While our Board of Directors and the majority of our members hold the value that recreational hunting of predators is not acceptable, we do acknowledge that Montana Fish Wildlife and Parks (MFWP) manage within your state's statutes that allow trophy hunting of large carnivores. The Center for Biological Diversity is a non-profit conservation organization dedicated to the conservation of native species and their habitats through science, policy, and environmental law. The Center is supported by more than 1 million members and supporters, including in Montana. The Center's work includes working to facilitate the protection and conservation predators, including mountain lions. Like The Cougar Fund, the Center does not support trophy hunting of mountain lions. However, we provide the following comments with the recognition that we can find common ground on ways to improve the current mountain lion plan. We also hereby incorporate our comments sent to MFWP on July 20, 2015 regarding MFWP's mountain lion management plan. In this regard, our comments will focus on those areas of the strategy that represent our shared interests related to the biological, educational and social aspects of this draft strategy. Areas of primary concern •

Protection of females, and of females with dependent young. • Education about mountain lions by MFWP to Montana's public, including those who do not hunt. • Conflict prevention and reduction practices as a priority solution to depredation. • Utilization of a proactive and flexible response plan for situations involving lions in developed areas • Demographic monitoring of mountain lion populations to ensure authentic hierarchical populations which include dominant males, reproductive females, females with dependent young. • The opportunity for dispersing young to reach areas of appropriate habitat to encourage expansion of the range of the mountain lion in north America.

Protection of females While Montana already prohibits the taking of a female lion accompanied by spotted kittens, we would like to suggest that this regulation be amended to protect any group of lions traveling together, regardless of spots or size. Lions are not pride felids and the probability that a group of lions is a family (female with dependent kittens) is very high. This change would remove the likelihood of a hunter killing a kitten where spots are not easily seen. Therefore, we respectfully request that estimates of age or evaluation of spots be replaced by the protection of groups from being taken. Education We know that MFWP has an exceptional education facility in Helena and ongoing programs about living and recreating in lion country. We support the outreach and education provided. An extremely important element of this strategy is the commitment to 'enhance public appreciation for mountain lions by providing insight about their role in the ecosystem and practices for living and recreating in lion habitat'. It is vital that early and ongoing education helps the public fully comprehend the ecological contribution of mountain lions to increase social tolerance and appreciation of mountain lions in Montana. Fear and myth often cause negative reactions rather than measured responses. We support this intention to further

educate, and suggest that this is an area of common ground where shared information could reach a broader constituency of Montanans if the material targets many different wildlife enthusiasts, as well as urban communities. We are anxious to see the specifics of how MFWP will expand their current educational programming and develop this conservation guideline.

Conflict Prevention and Conflict Reduction We support the ongoing efforts to reduce conflict through education, and through collaboration with Montana's Livestock Loss Board. We encourage grants for mitigation efforts and suggest that increasing compensation for livestock loss when the owner has employed verified mitigation attempts would be beneficial to growers. If the mitigation works, they do not suffer losses, and if depredation still occurs after mitigation is reviewed and found to have been appropriate and properly employed, then they are encouraged for their efforts. Hobby farmers are a priority group for conflict prevention education. Creative means to harness their enthusiasm for small scale animal husbandry is a challenge in many states and the incidence of conflict among this demographic can be disproportionately high. Montana has the additional challenge that many hobby farmers are relatively new residents. Raising small livestock close to abundant wildlife within a multi predator system requires functional and informational support from MFWP. While MFWP is limited to following local ordinances, it may be possible for a supporting organization (Friends Of!) to encourage state, county and town elected officials to include conflict prevention/attractant containment requirements along with land development regulations. We support the conscientious decision to combine documentation of all mountain lion mortality, including road kill, USDA Wildlife Service response, Agency removal or hunter activity. We respectfully request that MFWP further examine the mortality and/or debilitating injury caused by trapping. In this regard, we suggest documentation of mortality is augmented by examination of the paws and teeth of all lion carcasses to gather data on trauma that might have caused a lion to predate upon 'easy' prey, be unable to physically escape harvest, starve, or be subjected to intraspecies conflict because of a handicap caused by trapping. Further education of trappers and additional guidance by MFWP to identify areas of predicted lion activity and ways to avoid incidental mortality or maiming of mountain lions is encouraged. When using the adaptive management plan, it would be appropriate to see closures to trapping in areas of vulnerable or recovering mountain lion populations in addition to reduction or cessation of harvest mortality limits.

Mountain Lion Response Plan We support this comprehensive and transparent plan. We suggest further development of response options in the case of females, or females with dependent young. While translocation is not always successful, especially for family groups, a per-case assessment by an experienced MFWP biologist may reveal solutions that do not result in automatic removal. Careful assessment of whether a lion is 'just passing through' may also serve to protect young lions as they disperse to establish their own territory.

Demographics of lion populations We support the intent to "conserve mountain lions as a functional and valued part of Montana's wildlife ecosystems", but we do have some grave concerns about the functionality of a hunted population in regard to the demographic make-up of lions on the landscape. Although scientists are not always in agreement with each-others' findings, there is concern, both anecdotally from users in the field, and professionally by researchers (Cooley 2009) that selectivity in hunter harvested lions removes dominant males from the population. It has been suggested that the result of the desire to take the 'big old Tom' affects the hierarchy by increasing immigration of younger males, risk to kittens from infanticide, intra-species competition, and predation upon livestock by inexperienced lions. The goal of having stable and sustainable populations is one we definitely share, but we do ask that you monitor the demographics to ensure the hierarchical pattern of unmolested lion populations remains and initiate adaptive management protocols in a timely manner. Females of reproductive age and/or status may need greater monitoring and protection, and a proliferation of the adolescent lions that hunters do not choose to target may have negative effects on young ungulates and other lions. Maintaining connectivity is a positive aspect of the strategy that supports the opportunity for dispersal by young lions and contributes to the possible recovery of mountain lions to appropriate habitats across former home ranges.

In conclusion This is a huge document which relies heavily on the findings of published, peer-reviewed research. The intention to depend on science and the advantages of emerging technological modalities is vanguard in the field of wildlife management. We realize that National Parks are considered areas of 'refuge' for mountain lions

and other large carnivores, in that management is limited to public safety protocols. We respectfully ask that MFWP consider adding a limited area of 'refuge' to the monitoring and management strategy. By curtailing hunting practices for the purpose of gathering data about many species, biologists would be able to gain insight into the differences that arise in hunted and not hunted populations. The amount of time and effort that has been expended in designing and producing this model is acknowledged and appreciated. We truly value the degree to which the staff of MFWP have interacted with us, and listened to our perspective as they have worked on this strategy. Special thanks to Jay Kolbe, who has always treated our inquiries with respect and responsiveness. The Ecoregion overview is a new perspective on mountain lion management and as such, its success will be played out as time goes on, but the principles and protocols are definitely a step forward. While we may have differing values when it comes to mountain lion management options, we definitely support the commitment of MFWP, and Jay in particular, to developing this ambitious and progressive strategy and look forward to seeing how the practical application unfolds. We respectfully submit our comments with our thanks for considering the perspectives of diverse stakeholders.

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187 Ben Mummert Ttout Creek MT My opinion on the Mountain lion study that the FWP wants to conduct.....To start with why even have a study. Anyone that spends anytime in the mountains of Region 1 knows that there is way too many mountain lions. It does not take a costly study to figure that out. Why waste the money other than to create a job for some person to become the next Jane Goodal. I don't think we can trust the FWP to do the study and not be bias in favor of the mountain lion. Mountain lions are having a huge impact on our deer herds here and they also impact the elk. The deer herd in Region 1 will never rise in population with the current management protocol. We have a very unbalanced wildlife management with the mountain lion not being managed properly. It is basically letting nature take its course here in Region 1 greatly reducing deer,elk, and moose populations and greatly reducing hunter opportunity. The only people that are happy with the are the Humane Society, friends of animals, peta, green peace, etc. They are getting their way and are very happy with the management and opinions of the FWP. The FWP is creating a wildlife disaster before our very eyes and doing a great job of biting the hand that feeds them, the sportsman. Bottom line, reduce the Mountain Lion numbers in Region 1!! I feel that there are 100 or more Mountain Lions in hunting district 121. Over 5000 deer are gone every year due to lion predation.

186 David Powers Rexfod MT One thing is certain, and that is the need to control predator populations. The past two years I have seen more lions than I have in the previous 30 years. That would be in regions 100, 101, and 103. At the same time I have observed a sharp decline in deer, elk, moose, and bighorn populations. Given that the past two years included harsh winter conditions which along with high predator numbers causes a downhill slide in numbers of prey species, and recovery of these populations difficult at best. As prey species continue to decline there will be more human interaction as the predators expand their range in an effort to find food. Hunting with hounds is the only way to effectively reduce and control lion populations. Too bad it wouldn't work for wolves. As the ungulate populations decline, so will hunter opportunities and participation in hunting.

185 Jim Vashro Flathead Wildlife, Inc. Kalispell MT "Comments on the Draft Montana Mountain Lion Monitoring and Management Plan Flathead Wildlife is the oldest and largest sportsmen club in Northwest Montana. Our membership includes both hound/mountain lion hunters, as well as deer and elk hunters. This Monitoring and Management Plan represents the compilation of a great deal of knowledge and data into a comprehensive document to inform and guide development of management strategies. Management through four ecoregions using the resource selection function (RSF)

model and spatial capture- (RSF) model to estimate population abundance should help refine management strategies. Similar to statewide numbers, our club members that hunt deer and elk outnumber lion hunters by 20-30 times. Therefore, most of our comments are directed to impacts on the deer and elk populations and deer and elk hunting opportunities. Deer and elk populations have been declining in recent years in Northwest Montana. Your draft plan mentions that lions can adversely impact deer and elk populations and hunting opportunities. We agree. Mountain lions are the most influential ungulate carnivore across much of the state, especially where grizzly bears and wolves are absent or recovering. Therefore, wildlife managers must carefully consider the potential effects of mountain lion predation on prey populations when developing management prescriptions for both. (page 14) Winter severity explained most variation in annual whitetailed deer recruitment in northwest Montana. There, when harsh winter weather depressed reproduction and survival of hunted deer, predation (primarily by lions) became additive to other forms of mortality and exacerbated population declines (Montana Fish, Wildlife & Parks 2006). (Page 15) Mountain lion predation is more likely to limit a prey population's growth if that population is below habitat carrying capacity and the lion predation rate is high. For instance, if a severe winter causes a significant deer die off but overall forage availability remains unchanged, mountain lion predation may slow the herd's recovery. In this case, preemptively and temporarily reducing mountain lion density through hunting could increase the deer population's growth rate while potentially reducing human-mountain lion conflicts. (page 17) A few years ago, a FWP biologist, an authority on lions, estimated that mountain lions were killing over 25,000 deer per year in NW Montana. That is over twice the hunter deer harvest in Northwest Montana. It is our understanding that current lion populations are now higher and deer kills are likely higher. When you add in another 15,000 deer killed by wolves (FWP estimate), plus additional deer kills by several other predators such as coyotes, it is easy to believe that we may have what is referred to as a "predator trap," where both prey and predator populations struggle to survive. With this brief background discussion, we recommend the final lion plan include the following additions. 1. The final plan should provide a range of probable existing lion population estimates for the state, each eco-region and each lion hunting district. 2.

The final plan should display the probable lion deer and elk mortality for the state, each eco-region and each lion hunting district. 3. The final plan should identify the target lion populations in each management area and how lion hunting regulations will be adjusted to keep the target lion populations within management guidelines. 4. As required by MEPA, economics should be displayed. A five year old mature mountain lion has probably killed at least 200 deer or deer equivalents. How much would the Montana economy gain or lose when comparing one lion kill vs 200 hunter killed deer? We suspect the economic difference is startling. As noted in the Draft Plan (page 19): MCA 87-1-217. Policy For Management Of Large Predators - Legislative Intent (1) In managing large predators, the primary goals of the department, in the order of listed priority, are to: (a) protect humans, livestock, and pets; (b) preserve and enhance the safety of the public during outdoor recreational and livelihood activities; and (c) preserve citizens' opportunities to hunt large game species. While priorities (a) and (b) seem to be well discussed in this Plan, we see little reference to attaining Priority (c). Thank you for giving us the opportunity to comment. Jim Vashro President, Flathead Wildlife, Inc. "

184 John Kloote Bonner MT I think the MFG is doing a pretty good job of managing Mountain lions with one exception. Why do people without dogs get their season cut off when the lion dog folks start and can hunt till the quota is filled?? I have too many cats around and on my door step and don't understand the reasoning behind the no dog hunters being cut out of the best part of the season? We should be able to keep track of the quota and hunt till the area is closed no matter how late the season goes without a quota filled. Anyone with any experience can tell a female from a male after tracking it a while so the identification should not be the reasoning behind closing our season at the end of the general rifle season. Thank you

183 Barri Twardoski NA Hamilton MT "I have attended two presentations given Jay Kolbe and have read the proposed mountain lion management plan. My comments below are from

the perspective of a resident who is both and elk/deer hunter as well as a lion hunting houndsman. I appreciate fwps' efforts to conserve mountain lions and the recent lion population monitoring efforts. My comments are as follows: 1) I support the plan to use the Resource Selection Function (RSF) model for extrapolating ecoregion populations and setting harvest objectives. 2) For the Region 2 LMU, I would like to see a Hybrid Type 1/Type 2 harvest regulation. If a hybrid harvest approach cannot be added to the objectives, then I would prefer a Type 1 Special Mountain Lion license LMU for Region 2. The current Region 2 has a hybrid harvest regulation and I believe it is very much appreciated by local hunters. It allows FWP to meet harvest objectives during the general quota season and it maintains a high-quality hunting experience during the special permit season. 3) I am strongly opposed to the Type 2 General License and the Type 3 resident general License, nonresident special lion license in Region 2. The Missoula and Bitterroot Valleys are heavily populated with hunters and I know that a general license hunt will not maintain high-quality lion hunting experience for residents. If a general license hunt is adopted then the quality of mountain lion hunting will greatly decrease. Due to the intense competition and pressure, quotas will fill quickly and it will become a sport than can mainly be enjoyed by residents who do not work full time jobs and for the outfitting industry. The Type 1 or a Type 1/2 hybrid allows average residents who hold jobs to still enjoy quality mountain lion hunting. 4) I am concerned that lion populations in LMUs 250 and 270 may compete with higher wolf densities than the west-central ecoregion trend monitoring area. Wolf/lion conflicts may drive the lion population down harder in LMUs 250 and 270 than in the monitoring area. In my experience in the southern bitterroot almost every kill a lion makes is quickly claimed by wolves. 5) I would like to see FWP keep lion populations in Region 2 managed at levels similar to current 2015-2019 populations. I do not want to see a significant decrease in the lion population. I would like increased wolf harvest options, such as use of snares and longer seasons. Thank you. "

182 Billie Lincoln MT From my experience and understanding with mountain lion is this. First of all, we've never been able to get a real count on how many cats are really out there. But for some reason you base your information on hunters and residents who've seen cats and suggest that there must be so many cats out there that they've decided to go residential to find food. Fact is you've taken their food supply and hunting territories from them by the introduction of this infamous wolf whom have forced these cats to find new territories and food. The cats I've seen are not well fed, they're starving and few between. It used to be cats didn't hunt in the same territory without a fight, now they're forced to hunt with multiple cats in one territory merely for survival purposes, this means cats will be hunting more in residential areas to survive, babies survival rate is less than half as it stands, they may have a 13% chance of reaching adult hood if you're lucky. The biggest issue here is stop pointing a finger at cats for doing what they're so good at doing which is adapting and fighting to survive, your main issue is educating people that cats aren't this scary night prowler that are out to kill you. Wait until the wolf runs out of food, I guarantee you that he'll be moving into residential areas soon, if proper management doesn't happen soon. These cats belong here.

181 Warren Illi self Kalispell MT I find your draft plan is lacking in analysis of impacts of mountain lions on Montana's deer and elk herds. The final plan should include your best estimates of current lion and target lion populations for each eco-region. The plan should also provide estimates of how current and projected lion populations are/will impact deer and elk populations. The draft plan cites many lion studies that provide data on lion kills of deer, such as about one deer kill per week per adult lion. As required by MEPA, the plan should provide economic estimates of various levels of lion populations. An adult, 5 year old lion has probably killed over 200 deer. What are the economics aspects of one adult lion kill by a hunter vs 200 deer harvested by deer hunters. The MEPA also requires agency plans display alternatives. There are no alternatives in the draft plan. This draft plan is simply a justification statement for spending more sportsmen dollars to monitor lions without any goals to raise or lower lion numbers. Thanks for listening. Warren Illi There are 20-30 times more deer hunters in Montana than lion hunters. Impacts to deer herds must be displayed in the lion plan.

180 Monte and Mary Ellen Schnur Townsend MT We have lobbied for a comprehensive mountain lion management plan for years. We are very pleased it has been presented in draft form. We concur with the plan in general. Recognizing the wide distribution of lions, and their ability to fill available space should make quota setting more realistic. Recognizing the effect lion populations have on prey species is vital. It will take some internal fortitude on the part of the department to implement this science-based policy in face of some spirited differences in social attitudes in Ecoregion 2.

179 Steve J Gniadek Mr. Columbia Falls MT Comments to Montana Fish, Wildlife and Parks Department on the Draft October 2018 Montana Mountain Lion Monitoring and Management Strategy This is a well-written and thorough document, packed with much useful information. The acknowledgement in the introduction that FWP is committed to conserving mountain lions (p 4) is particularly appropriate, given the history of mountain lion management. Apparently the primary author of this draft document is Jay Kolbe, but his name does not appear in the document. This oversight is probably due in part to Jay's unassuming nature, but if he is the primary author, his name should be on the cover page or at least in the acknowledgements (heading misspelled) on p 8. Jay and the other contributors to the strategy should be proud of their efforts on this document. My comments are intended to help improve the strategy and I trust they will be received in that light. The basis of mountain lion management is a monitoring strategy that is well designed and supported by research and innovative modeling. The application of adaptive management will vastly improve the ability of FWP to estimate population levels and harvest impacts. The desire to fine-tune population levels through harvest is a strength of the strategy, but is also problematic, if conserving mountain lions "as a functional and valued part of Montana's wildland ecosystems" (1st guideline, p 5) is an important guideline. Will a focus on numbers capture the complex function of mountain lions in the ecosystem? My general impression is that, despite the comprehensive nature of the strategy, there is relatively little attention to the ecological and behavioral relationships of mountain lions with their environment. There is discussion of mountain lion predator-prey relationships, but little reference to the complex relationships among predators in multi-predator systems (see for example Krawchuk 2014), nor of the social relationships of mountain lions. Obviously, mountain lions are not social animals like many herding ungulates, nor even pack animals like wolves or coyotes, but they do have a loose social structure affecting home range, dispersal, impacts on prey species, and long-term persistence. Do we know enough about the natural function of mountain lions in wildland ecosystems to conserve them in that context? The word "natural" is used here in the relative sense, recognizing that even the most intact wildland ecosystems are impacted by human activity. But if functional wildland ecosystems imply a relative lack of human intervention, then how can that be reconciled with harvest management to achieve pre-determined population levels? Do managers know enough about mountain lion social structure and ecological relationships to approximate their functional role in a wildland environment through harvest? The management guidelines are commendable, but will require a consistent and sustained effort. Maintaining and enhancing public acceptance of and appreciation for mountain lions is especially important. Opinions will always vary, but management will be far more successful if the majority of the public share a common understanding of mountain lion behavior and ecology. I understand the need to "maintain a balance between mountain lion populations, their prey, and humans" through harvest. But there is too much emphasis on balance, in terms of keeping populations stable, with minimal variation in numbers of predator or prey. If mountain lions are conserved as a functional part of wildland ecosystems, their numbers will fluctuate, sometimes significantly, in response to social dynamics, prey abundance and distribution, vegetation conditions, weather and climatic changes. I understand the reality of harvest management, but would like to see more consideration for natural variation. One way to address this problem is to establish "control areas" where harvest is minimal or not allowed. The draft strategy states that harvest will not be limited in an entire lion management ecoregion, but that harvest may vary among LMUs within an ecoregion. If one or more LMUs were treated as controls, with no harvest, comparisons could be made among LMUs with a full range of harvest objectives, including no harvest. I suggest using the North Fork (LMU 110) as such

a control area, with no harvest. This would provide a control, or refugia, where more natural dynamics are allowed to define how mountain lions interact with their environment. By 1996, Toni Ruth was concluding her multi-year mountain lion research in the North Fork, so unfortunately we don't have good data on the post-1996 lion response. My perception of the impact of the severe winter of 1996-97 is that mountain lion numbers, at least in the North Fork, were declining in response to a significant white-tailed deer decline. Maintaining historically high lion quotas for several years further reduced already declining mountain lion numbers. Maintaining high quotas may have been justified to address concerns about public safety in some areas, in response to an increase in human-lion conflicts, but was that a concern in the North Fork? Is there in fact a clear cause and effect relationship between increased harvest and reduced conflicts? I also don't believe that maintaining high lion quotas was justified "to aid struggling prey populations" (p 11). In the North Fork prior to the 1996-97 winter, white-tailed deer density was extremely high; numbers may have been at historically high levels. Wolves were in the process of recolonizing the area, which likely affected lion (as well as deer) density and behavior. Regeneration following the 1988 Red Bench Fire was also influencing ungulate forage quantity, quality and distribution. Multiple dynamic factors played a role in the status of mountain lions and their prey in the North Fork. Many hunters complained that wolves and other predators were reducing ungulate harvest opportunities. In reality, hunters had grown accustomed to unnaturally high densities of white tailed deer, numbers that could not be sustained even in the absence of wolves and mountain lions. Those densities will probably never be achieved again, and the environment will be the better for it. It seems the goal of FWP, as expressed in the public meeting in Kalispell and in this document, is to maintain relative stability in game populations and harvest, including mountain lions. Harvest management is used to keep game populations from increasing or decreasing too much, relatively stable over time. This is classic game management (harvestable surplus, sustained yield curve, etc.). But it doesn't reflect how more natural (wildland) systems function. At the broadest scale, keeping species from extinction or overpopulation is an admirable goal, and the classic approach may be necessary under highly managed, mostly human-dominated ("mild-wild") landscapes. But if maintaining lions as a functional part of wildland ecosystems is a realistic management guideline, then at least some areas need to be managed with the lightest touch. Because "harvest can be additive to other forms of mortality and is often the most important factor affecting population size and growth" (p 12), as well as age structure, designate at least one area unaffected by the harvest factor. Research has documented that mountain lion populations are resilient; they can recover rapidly from harvest due to dispersal and immigration. However, this simple numerical response does not address how lions interact with their environment, where lion densities are regulated by prey availability and other factors without harvest. Within at least one area, allow mountain lions to achieve a dynamic equilibrium with minimal management intervention within the ecosystem, with numbers that fluctuate in response to all the variables in the landscape. The North Fork is the ideal environment because of the proximity of Glacier NP, the history of long-term multi-species predator-prey research, the relative lack of livestock, and the high level of public tolerance for predators. There will likely be pressure from hunters to continue lion harvest in the North Fork, but strictly in terms of wildlife management the only reason to allow harvest there might be a circumstance where lions were documented to limit a threatened or declining prey species. Research has implicated mountain lion predation in mule deer declines, especially in multi-predator, multi-prey systems like the North Fork. However, "weather and forage availability are more likely than predation to explain chronically low ungulate populations." (p 17) If on-going long-term FWP research on mule deer (including in the Whitefish Range) and moose documents that lions are having a significant impact on either species, harvest might be justified. However, given the resilience of lion populations, dispersal and immigration may render harvest ineffective as a means of recovering local prey densities. As stated on p 17, "the influence of these potentially limiting factors [weather & forage availability] should be evaluated before predation is implicated." Thank you for the opportunity to comment.

178 Brent Race Corvallis MT Dear FWP, First of all, great job putting together such a complete plan. I have a few suggestions, based primarily on my own preference. I live in

region 2 but hunt/chase lions in regions 2, 4 and 5. I own my own hounds but have a full time job and would consider myself more of a weekend warrior. I have appreciated the hybrid season run in the Bitterroot watershed in recent years as it provided a great opportunity to those lucky Special licence holders yet still allowed quotas to be met in the later part of the season. Why has that option been removed from the plan?? I would suggest that a hybrid season for parts of R2 is still a viable management tool. However, the restriction of unsuccessful special license applicants to purchase only a limited region 2 license was a punishment- and has been to me for five straight years. It seems excessive to restrict unsuccessful applicants from at least being able to purchase a general mtn lion license. In summary, I strongly support the continuation of the hybrid season in parts of region 2 (currently not an option in the plan) but would eliminate the restriction for unsuccessful applicants to purchase only the limited region two license.

177 Howard Morkert Trout Creek MT Speaking primarily about hunting district 121 and surrounding area the number of lions has steadily increased over the last 20 years while the harvest has fallen off dramatically. The regulations need to have some form of 50/50 quota and resident draw to increase the harvest. Currently the number of lions in the district are having a negative impact on deer numbers and to some extent elk numbers. Simply increasing the quota does not address getting hunters in the field to take lions. Encouraging trophy hunts by non residents is one way to increase the harvest. Anyone that has taken one or two lions really has little interest in adding another to their collection where as non resident hunters are an endless supply of willing hunters and a revenue base for FWP.

176 Thomas W.Parker Condon MT Very affirmative Compliments to MT FWP for the cumulative effort by everyone involved in this document. It is a well done and comprehensive effort to better understand how mountain lion populations function at various scales and the relationship of human and other influences upon them. Given the present threat CWD poses to the future of Montana's deer and elk populations it seems important and logical to identify need for healthy and robust population levels of mountain lions as likely one the most effective natural control mechanisms to target CWD in deer and elk. Its also logical to assume a similar effect in targeting weak animals of other species infected with other diseases such as pneumonia in bighorn sheep. Research evidence is strong, lions will select for vulnerable prey. Acknowledging the potential role, and value of lion predation on weakened wild ungulates and contribution toward disease control through vulnerable prey selection is something they do naturally and we can not replicate in any meaningful way. Other predators have varying potential and effectiveness in roles of predation on vulnerable prey but lions have somewhat unique potential with selecting for disease weakened large prey animals. This is not to suggest we should not recognize the role and value of other predators in this regard but rather the superior potential of mountain lions in accessing and selecting for vulnerable prey on the larger landscape. We simply have no human means to replicate this ecosystem service they provide 24 hrs a day, 7 days a week, 365 days a year at Landscape scale.

175 Mart Williams Babb MT After having reviewed the document, I would strongly encourage that you add a chapter about lion education, with some tips on how to live with mountain lions and to be proactive in regard to lion conflicts to reduce depredations (electric fencing, no salt licks around homesites, no feeding of wildlife, etc.). These additions, coupled with an effective education campaign and proactive law enforcement can serve to increase social tolerance for mountain lions. Thank you for the opportunity to comment.

174 Robert Slone Self Eureka MT Read report. Interesting??? Would like to attend meeting. A bit far in questionable weather. Why not a pod cast for audience to listen to long distance? There are plenty of cats, quotas too low. More general tags should be issued. Electronic callers should be approved for all hunting. Why discrimination is used against sportsmen in the 21 century is sad.

Nothing unethical with using electronic callers. Also much safer in dark timber than mouth and hand callers. Thank you.

173 Linda Rabenold Former business owner Fac & Cad Technologies Quilcene WA I just read, Heart Of A Mountain Lion. It is a very educational book to read that I recommend. We need mountain lions to control our ecosystem by controlling our deer population. Hunting & killing them backfires in many ways. If the male of a territory is killed, more younger inexperienced lions will come in to try & establish territories. If the female/mother is killed & her offspring are not ready to be on their own. These are the lions who don't know how to hunt down their natural prey, deer. These are the mountain lions who come looking for easier prey, like livestock & pets & in places we don't want them. Mountain lions prey are not people, but juveniles without the proper time to learn how to take care of themselves are the ones that become desperate. There have been many studies on this. Nature left taking care of itself is the best option. Most people now disapprove of trophy hunting. Our world is changing. In CA, they have a coexist policy that is working. If this study ends up raising quotas on how many lions are to be killed, I totally disagree with this study. The word management sounds ominous. This is not a sound method in this age. Therefore, from reading past exploits on how to control mountain lion populations, I disagree with this study. Human intervention has made many states become extinct of this majestic animal with rationale that incorrectly demonizes them. Respectfully, Linda Rabenold

172 Don Hettinger Townsend MT Don Hettinger 2636 MT Hwy 284 Townsend MT 59644 406-422-6191 January 8, 2019 I am commenting on mountain lions in our area. Their number has been increasing which suggests it is a factor in the decrease of our elk, whitetail, and mule deer populations. It also affects our turkey population which has taken several years to build. There have always been mountain lions here but the population is increasing to the point of too many in our area. We know from trail cameras and a neighboring houndsman of 10 different cats that are within a few miles. We know of some that frequent our 120 acre farm area. There are 2 females with 2 kittens each that are staying within a mile or two of our sheep corral here at our home and barn area. We bring our animals into the corrals every evening for their protection. A few years ago we had both whitetails and mule deer come into our lawn and corral area all winter long. They would be around us when we fed our sheep and cattle. Five years ago there were over a dozen head of mule deer and nearly that many whitetails that would come in several times a week in the evenings to feed on our lawn and hay. As the lions increased the number of deer coming in dwindled, and this year there are none. In fact this winter we seldom see one in our fields. We agree that lions do migrate in and out of an area as two years ago a collared female mountain lion came down from Canada and took up residence with a male on our creek bottom. We were able to read the report about the female as she was taken during the lion season. That male was also taken, and had been in residence here a couple of years as bowhunters, our neighbor, and our son saw him. It was obvious the reduction in the deer population which can be traced through my daily diary was impacted by those cats. The report refers to the concept of a sustainable lion population. In our area I know of no re-introduction of any kind, yet the cats were here and have continued to increase with the limited harvest quota. I present to you the population was sustainable before with huntable numbers each year. It is my understanding quotas were set in those days when 'guesstimation' determined populations. Even at present it is stated that the FWP will develop estimated mountain lion numbers. The SCR method may have a flaw in that certain animals, wild or domestic, do not mind being recaptured. In our cattle herd there are those who will load in the trailer when the door is opened and others who have to be cornered and forced into the trailer no matter how many times they are loaded. With that in mind, what is the population estimate of our whitetail and mule deer herds? Can they sustain feeding a large lion population? How will that affect hunters? Will they be satisfied paying for licenses where there are few deer to be found due to an abundance of predators? One of the main budget sources for FWP is the license fee income. Deer and elk herds need to balance out with hunting and the lion populations. It is good to see there is a requirement in the Mountain Lion Management Strategy for monitoring and balancing the prey population of the food supply species of deer and elk side by side with the population

of the mountain lions. It was stated that significant investments in field research have taken place. This means money and man hours. I am dissatisfied with the use of the money I pay for my hunting license and tags to be used for implementing a sustainable mountain lion population in our area when the sustainable population is increasing. We like to hunt deer and allow other hunters to come and hunt. It is enjoyable to see young hunters be successful but at present there is little or nothing to hunt. One cannot assume that one shoe fits for both lion districts 390 and 391, with 10 total as a quota of which 5 could be female. The season was closed 12/24/18 with 11 lions taken of which 3 were female. With this being the limit for the combined districts of 390 and 391, it appears that we are over populated with mountain lions in our small area of 391. Considering this, how do we regain a deer population? Over the counter antlerless whitetail tags or the regular general deer tag for whitetail deer adds to an already impoverished population.

171 JoAnn & Jan Finn Finn Angus Townsend MT We are concerned about the growing number of mountain lions in our area and the safety of our livestock, pets, and humans.

170 William Elfland three forks MT I am a houndsman and have the opportunity to observe a lot of lions and their behavior. I feel the lion quotas in the units surrounding the Gallatin Valley are too high. In particular, the female quotas are too liberal. I consistently trail single adult female tracks that lead to juvenile lions that the female is supporting. Killing an adult female is almost certainly going to result in the death of juveniles, even if the juveniles tracks are not apparent to the houndsman or hunters. Virtually all adult females are supporting offspring.

169 Diana L Brown TOWNSEND MT The quota area needs to be reduced so that lion harvests can be more targeted. Currently the area that includes Confederate Gulch is too large.

168 Ray Rugg Rugg's Outfitting LLC Superior MT Since region #2 and specifically units 200 - 203 are what I'm familiar with, my comments are directed there. It is my understanding that quotas are set to harvest that many animals. This was done when we had the general season in these units. Since we went to the draw and even later, the hybrid season, we have never filled the quota in these units. This tells me that the season # 2 is best for these units. I know that one of the arguments against this is the outfitted versus resident hunter but in all my years, I have never had problems with the resident housemen and they have always been willing to help me in anyway. The illegal outfitters, I have had trouble with but that is a different matter and is not part of this subject.

167 Marjorie Lulay TEHACHAPI CA As you can see, I'm a resident of CA but feel it necessary to comment on this issue as it affects mountain lions everywhere not just Montana. Your proposed "management plan" is flawed on several points. For one thing, humans do not need to "manage" wildlife and your suggested methods to do so would do nothing but decimate the population of a vital predator. Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted or managed. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely. I hope the Montana Fish, Wildlife & Parks will rethink their plans and stop before you do more harm than good. Thank you

166 Joam McKeown Joliet MT Killing adult lions is harmful to social structure and kittens are dependent on mothers for a long time. There are other options for protecting deer, elk & bighorn sheep. Hounding is unethical, unsporting & inhumane. Killing lions diminishes the critical ecosystem benefits they provide, they may be more effective @ culling animals with CWD than hunters. Illness & weather are a much greater threat to livestock than lions. Please, no trophy hunting!!!

165 Carol Wilkinson Boston MA Please do not allow hunting of mountain lions. This type of hunting should be banned in the US. Nature is intelligent and will self regulate without our interference. Mountain lions are important part of the Ecosystem. Please don't destroy them. Thank you.

164 Laura Wakeman Dillon MT To whom it may concern: Please do not include trophy hunting for Mountain Lions in your management strategy. To me this is a terrible idea. It is cruel hunting them with radio collared dogs. It is just so people can stuff them and put them in their houses. It hurts the young kittens who need all the help they can get trying to survive in Montana. And lastly, our wildlife is disappearing in Montana and in the world. I recently read an article in the New York Times and the person writing it said something that quite depressed me. He said a study published this year in the Proceedings of the National Academy of Sciences found that if you look at the world's mammals by weight, 96% of the biomass is humans and livestock; just 4% is wild animals. Please, please do not include mountain lion trophy hunting in your management strategy. Thank you for your time. Sincerely, Laura Wakeman Dillon, MT 59725

163 Scott Hanson Libby MT I support FWP improving their strategy for mountain lion management if it will actually improve the ability to have a better understanding of lions in MT. At least here in Libby we have an abundance of cats, this past hunting season we spotted 2 and found tracks of at least 6 others. With recent outcry in region 1 about deer populations and the "wolf problem", maybe getting information about the actual number of cats out there will, or maybe actual deer population data out there will help prevent smooth talking bankers deceive FWP and the people into supporting a "trophy area" based on lies, FWP should be taking the high ground and actively educate Montanans when special interest groups blatantly lies to push their agenda. I encourage FWP to also consider changing regulations to increase opportunity for people to hunt mountain lions, either by having a late season without hounds or increasing number of special draw tags available because the drawing statistics for mountain lions don't seem to exist. I have been told by cat hunters that it is easy to draw a tag but I have never drawn and know people who have never drawn, and I have no idea how many people are applying for tags, it is frustrating that FWP seems to be keeping it a secret. If the new management strategy is an improvement over the status quo, which doesn't seem to be working, then I support it.

162 Mike Freeman Whitefish MT I have spent the past 30+ years hunting in Region 1. I have seen our deer populations high and low. I believe you are at a very low point with overpopulation of mountain lions playing a huge role in this decline, especially on our mule deer population. With you not killing enough cats per year, the predator population has increased. I feel you should follow Region 2s mtn. lion management and after a certain date in the season, it should revert back to the quota system. There is no abundance in our deer population as your plan states. Thank you, Mike Freeman

161 Logan Freeman Whitefish MT FWP, although you may think that the current Mountain Lion Management strategy is effective, I disagree. In the most recent plan posted, your organization claimed that white tail deer numbers are abundant in Region 1. However, this contradicts statements made in regards to the upcoming meeting on January 9th regarding dwindling white tail deer populations. In my opinion, mountain lion management should return to the quota system previously implemented by your organization in order to fill the tags that currently go unused. An example of better management practices occurs in Region 2. The excess of predators and lack of proper regulation are a threat to our deer populations, something needs to be done.

160 Millie Carson Bozeman MT TROPHY HUNTING MOUNTAIN LIONS IS CRUEL AND UNNECESSARY! What is the purpose of hunting mountain lions in the first place? Management and controlling numbers is not a viable reason! Lion populations are limited by prey and habitat. Trophy hunting of mountain lions is unnecessary! Killing mountain lions does not boost ungulate

populations, and there are other options for protecting them; humane, nonlethal methods! The species is responsible for no more than 1% of livestock losses in the state each year! Killing females is a death sentence for the kittens! Mothers killed by trophy hunters leave orphaned kittens to die from starvation, dehydration, exposure, or predation. Kittens are dependent on their mothers for up to 2 years. And hounding is an abomination. It's unethical, unsporting, and inhumane! There is something fundamentally wrong with people who engage in this behavior! In addition, hounding is harmful to non-target wildlife! Mountain lions provide important ecosystem benefits. They keep prey numbers in check and they enhance the vitality of the herds! They are essential in helping reduce the spread of chronic wasting disease! Trophy hunting of mountain lions is wrong!!!

159 James H. Mundy IV Big Cat Specialist Coeur d'Alene ID Lets begin a shift from a "domination" orientation, emphasizing mastery over wildlife....to a more "mutualist" orientation, emphasizing harmony, care-taking and empathy. What 90% of our nations populace is trending for treatment of our remaining wildlife and wildlands. The fiery debate, increasingly common, suggests that change is coming. The USA's 3% hunting population (not counting out-of-country game permittees), and government "harvester" managements must recognize and shift. The option of the government, hunters and their organizations is to rid themselves of the fringe sport-trophy-harvesting element (which has unintentionally created an element with a dangerous cruel mind-set towards animals) feeding their egos and not jeopardize the privilege of hunters to feed their families. Our nation can learn to live and harmonize with these large carnivore-predators if done properly without the eventual forced change. Thank you for allowing the input.

158 John Pasqua Mr. Escondido CA Protection for the great mountain lions

157 Linda Cummings Montpelier OH Until we can 'manage' our own species, we have no right to manage/(kill) other species we share this planet with. Other living breathing creatures that have every much right to live here as we do. And to allow hunters to kill them, some times letting their dogs chase them into exhaustion and rip them apart, for 'fun', is disgusting, evil and barbaric. Can we not evolve into something better than that?

156 Donna Harris D.V.M. Bend OR To Montana Fish, Wildlife, and Parks Dept.: As a veterinarian who practiced for several decades and dedicated my life to the health and safety of animals and to their humane treatment, I strongly disagree with hunting predators as a means of management. It is inefficient, inhumane, and goes against the majority of scientific research of top predator biologists as a way to control populations or reduce human-livestock interactions. Growing up in N.M., I was fortunate enough to see my first wild cougar while hiking the juniper dotted mesas east of Los Alamos. I watched the cougar bounding down the canyon walls in awe. My second encounter happened in Central Oregon. Again, I was thrilled to be able to witness this apex predator. Also while growing up in N.M., I was exposed to the culture of Native Americans and was enchanted by their admiration and reverence for many animals, including the cougar. The power of the cougar was demonstrated in the Zuni tribe's handmade fetish carvings, of which I have collected many. The Native Americans think that the cougar represents power of leadership as a solitary and silent animal which can survive the harshest of environments. It is regarded as the Guardian of the North, especially with the directional fetishes. However, the cougar, being a survivor in harsh environment, has limits to its survival when it comes to overhunting by humans. Trophy hunting and shooting or trapping or poisoning cougars as a means of control has been proven to disrupt the social structure of cougars, especially when a dominant male is removed from his territory, allowing younger and less experienced cougars to move in and act like irresponsible teenagers who end up killing the "low hanging fruit" livestock because of this inexperience of being able to take down their traditional prey. If this research is in any doubt, one should read the scientific studies of Rick Hopkins of Live Oak Associates in California, an ecological consulting firm, or of Dr. Bill Ripple, professor at OSU in ecological studies, or of Dr. Robert Wielgus, past

professor and Large Carnivore Lab Director at WSU. I have attended talks given by these scientists. Rick Hopkins data shows that we kill 4-5 times as many cougars now as was done during the persecution era where bounties were placed on cougars in the early 1900's. California, with a population of 39 million, has had no cougar hunting in 45 yrs. This is happening in a state with an estimated 5 million cattle, and 600,000 sheep! Yes, California will allow cougars to be killed when depredating livestock, but only 100-120 cougars/ yr. are killed, which is a fraction of what other states are doing, with even much less livestock. Compare this number with Utah's 2017-18 kill of 456! His data shows that with increased harvest of females in states that do hunt, that 1300 cubs are orphaned every year! Until cubs get to 15 months of age, there is a low chance of survival. Dr. Wielgus condemned perception-based management. He tore apart Oregon's 2010 5-yr. cougar management plan which based the state's cougar population on false, perceived sighting data which was an unreliable metric. He also determined that "there was no scientific evidence that administrative removals achieved any of the stated goals (reduced complaints of livestock depredations, and increased elk calves). He said the Oregon report lacked any scientific credibility. ODFW figures stated that Oregon's cougar population was estimated to be around 6000....which is about the same population that California had, but where there is 1 and 1/2 times the square miles of cougar habitat as Oregon! The conclusion by Dr. Wielgus was that Oregon's cougar population estimate was very inaccurate. Dr. Wielgus stressed that if the input population is based on unreliable studies, then determining the quota to be killed will be wrong. He demanded that more accurate populations studies were in order and the quota should be reduced significantly while those studies are done. The worst choice is to increase the kill quota when population numbers are not accurate. This may lead to unsustainable populations. My last comment regards hound hunting of cougars. Oregon twice has voted down this method, and it is not allowed in this state. I condemn this type of hunting as extremely inhumane. Please use the California model of cougar management, where they are not hunted, and where the law states that non-lethal methods must be initially used when there is any cougar/ human or cougar/livestock interactions or depredations. Trophy hunting is not allowed either. Respectfully submitted, Donna Harris D.V.M.

155 Raleigh koritz Ms. Plymouth Hennepin County MN Please leave the mountain lions alone before you mess up the planet!

154 Michael L Hayes Heart K Angus Ranch Lewistown MT We summer cattle on the east side of the Judith's in Fergus Co. And are seeing lots of lions. As we check our cattle and repair fence. In 2016 we lost 8 bull calves and have 5 missing this year. Our sale average this year was \$4,205.00, thus the two year loss would potentially be over \$50,000.00 to our operation. We have seen one wolf in 2017, however we have sighted lions on several occasions. Something is taking our calves(we run the bull calves in a group near Collar Gulch). Any help would be much appreciated.

153 Lance Hughes Hobson MT Nonresidents should have limited harvest in quota areas also.

152 Kate Kenner Guilford VT Hunting is not a form of "managing" mountain lions or any other wildlife but merely serves the purposes of hunters. Nature has a balance that includes predators who keep other populations in check. The mountain lion strategy you propose will only harm them and is not necessary. Nature has a balance which people have completely messed up with their own plans and strategies and in the end there is no need for them. Nature and wildlife do just fine and keep the balance if left alone. Humans need to stop trying to control nature and wild animals because they do just fine on their own. Leave the mountain lions alone. They should have the right to live in peace and safety. I always say that humans are not special or the most important species (though many disagree) but are merely the one with the power-power that is too often abused.

151 Ed Bukoskey Rosebud MT In Region 7, I know of 5 lions killed in the Colstrip/Forsyth area. I realize areas can not be governed by small areas but somehow this concentration should be reduced. I've heard of sightings close to schools for several years now, reduce numbers!

150 Martin Tripp Santa Clarita CA From everything I have read, hunting is considered an ineffective and unnecessary way to manage mountain lion populations. Nature is self-balancing. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting has the potential for triggering more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely. Hunting may be a hobby or sport to some but it's cruel. The image of a mountain lion be tracked by hounds only to be killed by the hunter and solely for their enjoyment is sad. Observing the mountain lions as they maneuver through their natural habitat is a thing of beauty and to be appreciated. I would consider this a much better substitute for hunting and killing.

149 Peg Brewer Bigfork MT Stop trophy hunting mountain lions! Its barbaric and cruel. This is not the 1800's. We need to protect our wildlife. If you aren't going to eat it you should never be allowed to murder an animal. Please do the RIGHT thing and protect them.

148 Steve Barkley Bozeman MT Dear FWP, I've lived in the Bozeman area for decades and in prime Mountain Lion habitat for the last 9 years. We've never experienced a conflict with Mountain Lions and believe that they are a critical part of our health ecosystem! Trophy hunting of Cougars is both cruel and unethical in practice which is against what most Montanans believe should be fair chase and ethical quick kills. Hunting of Cougars is unnecessary and isn't effective in reducing livestock predation to any significant degree. Hunting of cougar should be minimal and only when a verifiable conflict arises. The use of hounds should be banned due to the fact that there's nothing sportsman like about that practice. Thank you

147 Kyle Johnson Indianapolis IN I am very disappointed to see that licenses are being given out to hunt pumas. I want to express that I am not against hunting or fishing if done in a humane and sustainable manner. However, at this current time the puma population is nowhere near large enough to sustain hunting. Every puma right now should be protected as a vital natural resource.

146 Josh Stroot USFS Superior MT Please keep Lion Management Units 200,201,202, and 203 current regulations the same or very similar. The current special draw with a general late season is the best way to give locals a chance at hunting lion and still achieving desirable harvest numbers with a late general season. I have been through all the regulation changes over the years and the current regulations seem to be the best solution for all interested parties because everyone (locals and outfitters) get a chance. My personal observations are indicating that lion numbers are down in unit 201 and 202 the last two years. Mature male lions seem to be hard to come by and I am not seeing hardly any females with kittens. This is based on general hunting season observations, working in the woods, and actual lion hunting. Therefore I do not wish to see harvest numbers increased in unit 202 and 201 in particular.

145 Beth Levine Rockville MD Please do not kill mountain lions. Trophy hunting increases complaints and conflicts with mountain lions, including with livestock. Killing mountain lions is not an effective livestock protection tool. Even with widespread trophy hunting of mountain lions in Montana, the species is responsible for no more than 1% of unwanted livestock losses in the state each year. Other causes, like weather and illness, are a much greater threat to livestock. Montanans would benefit from increased education about humanely coexisting with cougars, rather than increased cougar killing. Humane solutions are readily available for livestock operators to protect their animals and prevent the unnecessary killing of mountain lions.

144 Jai Keller Medford MA Please do not allow mountain lion trophy hunting in Montana. I like the Mountain Lion Management Strategy in that it creates a much needed guidance for monitoring mountain lions and providing population estimates throughout Montana. Yet, it includes trophy hunting of mountain lions as a primary management tool. Trophy hunting of mountain lions is unnecessary and harmful to their populations, it also causes increased conflicts with humans, pets and livestock according to numerous studies. Between 2007 and 2016, trophy hunters killed more than 4,400 mountain lions in Montana and this did nothing useful in managing the animals. Research in Montana shows that killing mountain lions does not boost prey populations. Other options for protecting deer, elk and bighorn sheep are available and much more effective over the long-term. Killing female mountain lions is harmful to their kittens. These animals are highly dependent on their mothers well for up to two years. Mothers with dependent young are often killed by trophy hunters, leaving the orphans to die from starvation, dehydration, exposure or predation. Killing adult mountain lions is harmful to their sensitive social structure. The loss of adults encourages subadults, naturally less skilled at hunting, to immigrate, causing increased conflict with humans, pets and livestock as well as increased infanticide on mountain lion kittens. Finally, hounding is harmful to mountain lions (including kittens), non-target wildlife, and the hounds themselves. And I think that using radio-collared trailing hounds to chase mountain lions and bay them into trees or rock ledges so a trophy hunter can shoot at close range is unsporting, unethical and inhumane- barbaric really. We are better than this! Please do not allow mountain lion trophy hunting in Montana. Thank you for your attention to my comments.

143 Debi Griepsma FontanaCA Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely.

142 Kathleen Krasenics Rancho Santa MargaritaCA I'm commenting your mountain lion strategy as I too live and recreate among mountain lions in Southern California. Hunting is an ineffective and unnecessary way to manage mountain lion populations, especially when it comes to livestock. These populations manage themselves according to the land and food available. In other words, mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely. Our wild-lands are among the last in the world, as well as the creatures in them. They need to be treated with care. Mountain lions help manage the rest of the forest as do other apex predators by keeping down populations of invasive species and pests. I urge you to think 7 generations ahead when making your decision that effects these incredible animals. Kathleen Krasenics

141 Jamie Long Hood River OR Please do not allow mountain lion trophy hunting in Montana. I like the Mountain Lion Management Strategy in that it creates a much needed guidance for monitoring mountain lions and providing population estimates throughout Montana. Yet, it includes trophy hunting of mountain lions as a primary management tool. Trophy hunting of mountain lions is unnecessary and harmful to their populations, it also causes increased conflicts with humans, pets and livestock according to numerous studies. Between 2007 and 2016, trophy hunters killed more than 4,400 mountain lions in Montana and this did nothing useful in managing the animals. Research in Montana shows that killing mountain lions does not boost prey populations. Other options for protecting deer, elk and bighorn sheep are available and much more effective over the long-term. Killing female mountain lions is harmful to their kittens. These animals are highly dependent on their mothers well for up to two years. Mothers with dependent young are often killed by trophy hunters, leaving the orphans to die from starvation, dehydration, exposure or predation. Killing adult mountain lions is harmful to their sensitive social structure. The loss of adults encourages subadults, naturally less skilled at hunting, to immigrate, causing increased conflict with humans, pets and livestock as well as increased infanticide on

mountain lion kittens. Finally, hounding is harmful to mountain lions (including kittens), non-target wildlife, and the hounds themselves. And I think that using radio-collared trailing hounds to chase mountain lions and bay them into trees or rock ledges so a trophy hunter can shoot at close range is unsporting, unethical and inhumane- barbaric really. We are better than this! Please do not allow mountain lion trophy hunting in Montana. Thank you for your attention to my comments.

140 Christine BillingsMT Please do not allow such cruel and unnecessary slaughter of mountain lions. Hunting of these animals has gone way too far. It is so harmful on so many levels.

139 Marc Grawunder Westerkappeln

138 Henry Saxe Taos NM Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely.

137 Sarah Stewart Gardiner MT Please do not allow mountain lion trophy hunting in Montana. I like the Mountain Lion Management Strategy in that it creates a much needed guidance for monitoring mountain lions and providing population estimates throughout Montana. Yet, it includes trophy hunting of mountain lions as a primary management tool. Trophy hunting of mountain lions is unnecessary and harmful to their populations, it also causes increased conflicts with humans, pets and livestock according to numerous studies. Between 2007 and 2016, trophy hunters killed more than 4,400 mountain lions in Montana and this did nothing useful in managing the animals. Research in Montana shows that killing mountain lions does not boost prey populations. Other options for protecting deer, elk and bighorn sheep are available and much more effective over the long-term. Killing female mountain lions is harmful to their kittens. These animals are highly dependent on their mothers well for up to two years. Mothers with dependent young are often killed by trophy hunters, leaving the orphans to die from starvation, dehydration, exposure or predation. Killing adult mountain lions is harmful to their sensitive social structure. The loss of adults encourages subadults, naturally less skilled at hunting, to immigrate, causing increased conflict with humans, pets and livestock as well as increased infanticide on mountain lion kittens. Finally, hounding is harmful to mountain lions (including kittens), non-target wildlife, and the hounds themselves. And I think that using radio-collared trailing hounds to chase mountain lions and bay them into trees or rock ledges so a trophy hunter can shoot at close range is unsporting, unethical and inhumane- barbaric really. We are better than this! Please do not allow mountain lion trophy hunting in Montana. Thank you for your attention to my comments.

136 Monica Riedler Washington DC Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely.

135 Theodora Sullivan Raleigh NC Trophy hunting should be banned since it only feeds the egos of a few. Hunting itself is unnecessary when it comes to mountain lions, since the populations are self-regulating. Please rework the strategy. Thank you.

134 Michael Friedmann Individual Bronx NY Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely.

133 Liz Field Acton MA Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely.

132 Victoria Peyser Ms. NewarkDE Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely. Thank YOU for taking the time to be a voice for mountain lions!

131 Lisa Neste Mrs. High Point NC Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely.

130 Becca Hand-Smith Kalispell MT Please do not use trophy hunting of mountain lions as a population management tool. This is an unnecessary and cruel strategy. There are negative consequences to killing of these animals. Thank you

129 Nancy Boice Hamilton MT Please save this valuable resource for tourists and people who love outdoor recreation. It is inhumane to hunt these animals in the way they do.

128 Dr. Stephen and Jennifer Littman Bozeman MT We are disgusted by trophy hunting of mountain lions. They live peacefully in in the Gallatin Forest behind our home. Unfortunately, we have observed a trophy hunter tree a lion with dogs and take it down. It was absolutely inhumane. We approached the unfortunate, bloody carcass and noted that it was a female. She may have left cubs behind to starve in the cold, January winter. This is an example of greed. No one ate that beautiful lion. We are encroaching on their territory and not the other way around. At what point will we tip the population of the mountain lion in the direction in which they can't survive. Those of us who live in Montana want it to remain "The Last Bezt Place". Unless an individual can prove that the lion is an immediate physical threat, he or she must let it be to survive.

127 Kim Smith Beverly WV

126 Chris Rappolt Helena MT Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely.

125 Sabine Möler Esselbach GA

124 Veronica B. Placerville CA Please protect the mountain lions!!!

123 dogan ozkan Mr. Fairbanks AK The purpose of the draft strategy is to establish guidelines as to how FWP will manage and monitor lion populations. The draft does not lay out any population objectives or hunting recommendations. Since mountain lions require large, connected landscapes to thrive, FWP intends to implement a new adaptive management approach which includes defining four mountain lion ecoregions. These regions consist of large landscapes of similar quality habitat, within which populations are anticipated to act similarly. According to the department, "FWP will then develop estimates of mountain lion numbers within these ecoregions using a new but proven

genetically based field sampling method. With the population estimates plus lion harvest data and lion ecology, wildlife managers will employ a statistical model to predict the effects of lion harvest on populations." Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely.

122 Cher Clarke Beverly Hills CA Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted.

121 Anima Chi Beverly Hills CA 1. Hunting is an ineffective and unnecessary way to manage mountain lion populations. 2. Mountain lion populations are self-regulating and do not need to be hunted. 3. Sport hunting will trigger more conflicts between mountain lions and domestic animals. 4. Most people no longer support trophy hunting and believe it should be banned entirely. Thank You Regards, Anima

120 Rocky Mr. Greensboro NC Please do all that you can to assure the safety and preservation of the beautiful Mountain Lions and their environment.

119 Peg Brownlee Florence MT I ask, as a Montana resident, that you do not allow trophy hunting of mountain lions in our state. I am sure you have heard all the reasons. The bottom line is: IT IS WRONG, UNJUSTIFIED, and DAMAGING TO THE ECOSYSTEM. Thank you.

118 Jeff J Blatnick Billings MT I think that it is unnecessary to trophy hunt mountain lions in Montana because their numbers are few due to habitat loss and prey availability. We need to preserve the diversity of our ecosystems and allowing trophy hunting of this species only exacerbates the human and animal conflict while damaging ecosystems. We need to listen to wildlife Biologists and accept that killing these animals does not help manage populations or reduce conflicts with livestock.

117 tamara iwerks Red Lodge MT Trophy hunting is for men with small minds and penises. Trophy hunting of mountain lions is not only cruel and harmful to their populations, studies show it also causes increased conflicts with humans, pets and livestock. STOP trophy hunting of mountain lions.

116 Theresa Froehlich-duToit Helena MT Please DO NOT allow trophy hunting of our majestic mountain lions. Let them live in peace. Live and let live.

115 Dr. Elisabeth Bechmann St. Pölten, Austria Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely.

114 Janine Vinton Mrs. Albany NY I believe that hunting is an ineffective way to manage mountain lion populations. Sport hunting will trigger more conflicts between mountain lions and domestic animals. There have been many news reports over the past couple of years about sport/trophy hunting and a vast majority of people believe it should be banned. Thank you for taking my thoughts into account.

113 Tim Linehan Linehan Outfitting Co. Troy MT I applaud the new philosophy of ecoregion management for mountain lions, and other predators as well for that matter. I'm an outfitter and still have an issue with non-resident licenses being capped at 10%. Thanks.

112 SARA SANG LAS VEGAS Hunting of lions will only increase conflicts with livestock owners because hunters always pick and target their most desired targets which are the adult males and females . because they are the adults and have been around living or knowing how to avoid humans , they are the least for us to worry about . by removing them , their young or the inexperienced will prey on the easiest targets which are livestock and pets . in short if one truly wish to manage any predator (not turning them into extinct species), predators like cougars should be left alone. because male cougars will cull kittens that are not theirs ; they do their own managing or regulating of their own species (unlike livestock , deer or even wolves)

111 Rebecca D Furr Ms. NEW MILTON WV Have you ever considered doing something to protect and preserve your mountain lions or are you just in the business of selling their lives to demented people who kill them for fun?

110 Sima Verzino Phx AZ Conservationists must be allowed to monitor our wildlife using proven and safe methods to ensure we keep our wildlife and eco systems up to date and intact. The balance of life depend on this.

109 Nathalie WANGERMEZ Mrs. MIAMI FL ONE SHOULD BE ASHAMED by destroying our wildlife!

108 Valerie Sisson Mrs. Kentwood MI Please leave the apex predators alone. The world has too much beef, sheep.. We need our predators to be wild and free. Jehovah had a purpose and it was fine until Man entered the picture

107 Thomas D. Sanders Higganum CT Animal populations will regulate themselves if left alone.

106 Tina haydamacha Gibbstown NJ Endless Murder, Not acceptable unwarranted and simply must be outlawed

105 Sarah Desousa Spring Branch TX Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely.

104 Amir Niknam Northridge CA Please protect the mountain lion population by stopping unsustainable hunting and draft a plan that provides them enough prey to thrive Thank you very much for your valuable time

103 Anna Brewer none Phoenix AZ I oppose hunting mountain lions, these wild and beautiful animals are necessary in our natural environment and hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted and trapped!! There is no such thing as 'sport' hunting, it is plain cruel and should be abolished at all times! Besides, it will trigger more conflicts between mountain lions and domestic animals, owned by irresponsible people, which has been observed more often these past years. Most people no longer support trophy hunting and believe it should be banned entirely. Please listen to your own citizens!

102 Lynn Roebuck Ms. Fort Smith AR Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely.

101 John Pasqua Mr. Escondido CA Protection for the great mountain lions.

100 Jeffrey Weiss retired Sunnyvale CA The draft gives guidelines for managing and monitoring lion populations in the state. But where are the actual new goals for "conservation" of the lion population or any new hunting limitations that will actually make conservation of the lion population possible? Those should be added. We have a good density mountain lion population near us in CA (I've seen several in recent years) but I would never think of killing any of them for fun, but that is another subject, as I know lots of citizens think that is good recreation. Sincerely, Jeff Weiss Sunnyvale, CA 94087

99 Mary and Brian Jokela Deer Park WA This draft appears to omit new conservation goals for robust populations and/or hunting restrictions. How does "management" occur without them?

98 Cheryl innes Lexington KY I find it disturbing that you have no limitations on hunting the mountain lion, or any strategy for maintaining the population of the mountain lion.

97 Doris Ann Wilcox retired Burbank CA 12-17-18 Hunting is UNNECESSARY way to manage Mt. lion populations because they are self regulating., Most people no longer support trophy hunting because it makes even more conflict. Trophy hunting should be banned forever.

96 Ellen Dollar San Luis Obispo CA I want to see mountain lions survive into the future. Preventative measures against live stock attacks seem to be effective.

95 Jon Way Eastern Coyote Research Osterville MA I'd like cougars managed for their ecological and non consumptive value and not for maximum hunting opportunities which is the norm in State wildlife management. The state of WA hunts no more than 14% of sub populations and allows for ecological and aesthetic value by non hunters. Please do likewise in MT, a state I visit once or twice a year specifically to see and observe wildlife. Thank you.

94 Barbara Jordan St. Francis Hospital North Bellmore NY Please stop the hunting of mountain lions and take care ok g them.

93 Leno Sislin LOS ANGELES CA We here in California have killed so many of these beautiful cats, it's tragic. Another one just days ago.... Hopefully, your plan, which sounds pretty good with all the interconnecting lands,will work and get approved! WE MUST, ALL OF US, TRY TO SAVE WHATEVER SPECIES OF ANIMALS, BIRDS, FISH, ETC. WE HAVE LEFT ON THIS EARTH.... Thank you.

92 nannette valparaiso KS

91 Susan Dubovsky Tawas City MI Please learn and educate humans how to coexist with the Mountain Lions. They are only trying to survive. Thank you.

90 Susan Bilo Montana Citizen Bozeman MT Thank you for the opportunity to provide feedback on the Montana Mountain Lion Monitoring and Management Strategy. I

appreciate the Montana FWP's efforts to: maintain quality habitat for mountain lions, (as well as other native animals), adopt an overarching ecosystem/ecoregion approach, and use an adaptive management strategy. Proactive Conflict Prevention It is critical for mountain lions and other "recovering" species that conflict prevention be emphasized. Suggestions for your consideration: 1. If not already the policy, allow mountain lion conflict-related killings to count toward the overall ecoregion harvest goals. This will help citizens realize the importance of responsibly living with wildlife and increase hunter support for proactive conflict prevention educational efforts. 2. Strengthen and proactively enforce state law and local ordinances that prohibit certain wildlife attractants. Make sure penalties are such that people take them seriously and they prevent bad behavior. 3. Make sure FWP conflict prevention programs are well-funded and staffed. 4. Require ALL livestock producers to proactively implement conflict preventative measures. 5. If #4 above is not doable in the near future, make it easier and more economical to participate in these conflict prevention programs that to not. For example, if a producer implements the measures, but still loses an animal, let them receive a higher reimbursement rate than a producer that takes no measures and loses an animal. Issues not covered in the report: While not within your direct purview, I hope that when/if there are opportunities, you will consider discussing these important, bigger picture issues that will have to be addressed eventually: 1. the impacts of an ever-increasing human population and continued human encroachment into "suitable" wildlife habitat. Wildlife's piece of the pie keeps shrinking. 2. The impact of chronic wasting disease on prey sources. 3. Potential climate change impacts. 4. If the current administration succeeds in weakening clean water and clean air rules, the impacts on healthy ecosystems that support humans as well as all flora and fauna.

89 Paul Bird Midlothian VA •Hunting is an ineffective and unnecessary way to manage mountain lion populations. •Mountain lion populations are self-regulating and do not need to be hunted. •Sport hunting will trigger more conflicts between mountain lions and domestic animals. •Most people no longer support trophy hunting and believe it should be banned entirely.

88 J.N. Petzak Glendale CA Mountain lions are essential for the health of prey animal populations and the maintenance of the land. They take sick and weak animals, keeping the populations healthy. Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals and upset the balance of nature because the lions whose lives are lost are most often the biggest and healthiest. Most people no longer support trophy hunting and believe it should be banned entirely. I agree entirely with this mindset and ask that hunting of mountain lions not continue.

87 Clarence Sanders Bozeman MT To Montana FWP: Thank you for undertaking a study of mountain lion population and ecology in Montana. Without this research we could lose our mountain lions, as almost occurred in California, a state like Montana with a vast mountainous area. In conducting its own study, Montana FWP should keep in mind that other studies have shown that: > Hunting is an ineffective and unnecessary way to manage mountain lion populations. > Mountain lion populations are self-regulating and do not need to be hunted. > Sport hunting will trigger more conflicts between mountain lions and domestic animals. > Most people no longer support trophy hunting and believe it should be banned entirely.

86 Paula Hollie Laguna Woods CA It has been proven that hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely. It is also a fact that the big predators (mountain lions, wolves) act to cull herds of the old, infirm and diseased animals. This keeps the herds healthy and vital. Please take care of these wonderful creatures that God put here with a purpose.

85 Louise Gray Hiker, Teacher and Parent Lompoc CA We live in the country where wild Mountain Lions are— along with cattle ranchers and we all get along just fine. We use common sense (don't hike alone, don't leave small dogs out 24/7, etc). The ranchers haven't lost any cattle to them either. Years back, in another area, some people killed off the Coyotes and now, even years later, the rodents are real bad there!!! Holes are all over from ground squirrels, mice in food, etc. because these stupid and cruel people thought killing Wildlife was the answer—but they made things worse! Every time you mess with Mother Nature you get trouble!! We are not God, we are not superior to Him! We must learn to work With Wildlife! The American Indians in our area survived just fine with Mountain Lions, Bears, etc. for 10,000 YEARS! It was us, the Whites who destroyed things so ENOUGH!!! Time to work with Wildlife and Nature. Did you know we share same DNA as Mountain Lions!! Over 40% same DNA! We have a heart similar to theirs, raise families, care for our young, born same way, and they also teach their young!! Biologists have ways to protect cattle from them—for example food aversion -non lethal additive to a dead cow, lion eats it then gets sick so stays away from them! Alpaca farm nearby uses big dogs to protect herds. "Where there's a Will — there's a Way" Stop killing off God's Creatures!!! We are not God! We live ON Earth—we don't own it!

84 Lawrence Thompson LIVERMORE, CA CA I like most people do not support trophy hunting and believe it should be banned entirely. Sport hunting often triggers more conflicts between mountain lions and domestic animals. Therefore, hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. They just need to be left alone to enjoy life without human interference.

83 Gloria Eddie Portola Valley CA •Hunting is an ineffective and unnecessary way to manage mountain lion populations. •Mountain lion populations are self-regulating and do not need to be hunted. •Sport hunting will trigger more conflicts between mountain lions and domestic animals. •Most people no longer support trophy hunting and believe it should be banned entirely.

82 S Jitreun N/a Ann Arbor MI It needs to lay out new goals to conserve the lion population and new hunting limitations.

81 Eden Kennan Van Nuys CA Your draft plan appears not to impose any new restrictions on hunting mountain lions, nor does it include plans for conservation. If this is true, I would suggest that the final plan deals with these issues.

80 christa romppanen Mrs. Yarnell AZ the conservation of this important apex predator is of the utmost importance.

79 Mary Shabbott Punta Gorda FL The purpose of the draft is to establish guidelines for managing and monitoring lion populations in the state. It does not lay out any new goals to conserve the lion population or any new hunting limitations. Way past time to protect the wildlife instead of hunters.

78 Cathie Wanner Ernst Scottsdale AZ Since mountain lions require large, connected landscapes to thrive, FWP intends to implement a new adaptive management approach which includes defining four mountain lion ecoregions. These regions consist of large landscapes of similar quality habitat, within which populations are anticipated to act similarly. According to the department, "FWP will then develop estimates of mountain lion numbers within these ecoregions using a new but proven genetically based field sampling method. With the population estimates plus lion harvest data and lion ecology, wildlife managers will employ a statistical model to predict the effects of lion harvest on populations."

77 Gloria Picchetti Ms. Chicago IL Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely.

76 Terrie C Williams Vidor TX Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely.

75 jean pubilee flemington NJ protect their lives. the model should be how california taks care of its mountain lions. it should be the same. they are foward thinking in ca instead of insane wildlife killers. they are a good model.

74 Lisa Mazzola Tampa FL Hunting is an ineffective and unnecessary way to manage mountain lion populations. Mountain lion populations are self-regulating and do not need to be hunted. Sport hunting will trigger more conflicts between mountain lions and domestic animals. Most people no longer support trophy hunting and believe it should be banned entirely.

73 James Long Seeley Lake MT I believe that in region 2 where lions are abundant the regulation should be changed to allow electronic callers. If dogs can be used to run them down an electronic caller would help to bring them down to management goals.

72 Kerry and Tim Mushkin Whitefish MT We had the opportunity to attend the Montana Fish, Wildlife & Parks (FWP) 11/29/18 Kalispell informational meeting on the proposed Mountain Lion Management and Monitoring Strategy and would like to provide the following feedback & comments: Firstly, we'd like to acknowledge what a great job Jay Kolbe did with his presentation during the informational meeting and to congratulate both Jay and FWP on the level of public turn out and departmental support. We retired to Montana four years ago. We are neither hunters, or conservationists, and we don't pretend to understand the history around lion management in Montana. From our limited perspectives, the mountain lion is an iconic symbol of our state, deeply embedded in the Montana lifestyle, and a critical part of a healthy balanced ecosystem. We'd like to see a sustained mountain lion population in our state and believe your proactive monitoring & management model will help to achieve that. We have written to both Montana District 5 Representative Dave Fern and Senator Bob Keenan to inform them that we attended the informational briefing; believe the Mountain Lion Management & Monitoring proposal to be a solid and responsible science-based strategy and to ask that they both endorse the use of your budget to implement it. Thank you for all your hard work on this proposal and for promoting safe/ethical harvest practices in general. Please don't hesitate to contact us if we can be of any further assistance in your endeavors. Sincerely, Kerry and Tim Mushkin 310 B Wood Run Dr. Whitefish, MT 59937 (425) 434-7200 (we also e-mailed these comments to fwpwld@mt.gov)

71 fred domer annandale VA Please consider the following: The mountain lion is very important to many people throughout this country. Mountain lions don't require any hunting to control their population. Their population is controlled by prey availability. Habitats are being reduced everywhere, trophy hunting just adds to that. As wolves expand their range, lions face additional attacks by wolf packs and have already been driven out of some areas in the U.S. We should not and don't need to trophy hunt lions. Thank you

70 BUD MARTIN Zortman MT I am in total disagreement with this proposed "strategy" it is based solely on management of people (hunters) Mountain lions are predators and need to be managed as such. MCA currently defines predator management.

69 Patti Packer Scotia NY Hunting is an ineffective and unnecessary way to manage mountain lion populations as they are self-regulating and do not need to be hunted. In addition, sport hunting will trigger more conflicts between mountain lions and domestic animals. Decent people no longer support trophy hunting and believe it should be banned entirely.

68 Benton Lunt Midwestern University Gallup NM I am in favor of reducing lion numbers due to an increase in many other predators on the landscape. More female lions need to be killed. This will help to increase mule deer and sheep populations.

67 KC York Hamilton MT In reviewing mountain lion management strategies the incidental trappings of mountain lions cannot be ignored. They need to be addressed and accounted for in establishing quotas. An injured lion, a dead lion, is or was a part of the population. In just a two year period almost 50 mountain lions were reported trapped. Over 3/4 were injured or killed. These lions need to come off the quotas. Management needs to be based on modern day science, not subjective to special interests. Thank you.

66 Paul Wheeler LansingMI Definitely need to maintain a program for harvesting mountain lions. Human and pet safety is my primary concern.

65 tad lisowski concerned citizen kalispell MT Please revisit the special draw system currently implemented in hunting districts of N.W. MT. It is clearly evident from the "have you seen:me: signs for moose at check stations that both moose and mule deer numbers have severely declined in the last decade in the upper whitefish range. I understand that there are various factors but the proliferation of large predators including mountain lion are a major contributing factor. By removing the special license I feel that the harvest can be more effectively managed to ensure that we are harvesting more than just large male lions. I know the project is not complete but your biologist Mr. Thiel has made it know that of the collared mule deer many fatalities were a result of the high mountain lion population. Please protect all resources not just the large predators. Thank you for your consideration.

64 Tom Adams Havre MT We encountered 2 lions while bowhunting in 621 and 622 this year during the day, have been hunting there since 1986 and this was our first encounter. Also another bowhunter actually shot a lion that wouldn't stop stalking him in that area, makes it darn spooky walking in the dark mornings and evenings, please open those areas to more lion hunting.

63 Whitney Shanks N.A. Kalispell MT After the meeting I attended Thursday night 11-29-18 in kalispell , I was truly disappointed. I understand mountain lions along with all predators have a place in our ecosystem and we need them. We also need to have deer , elk moose, sheep, and goat's. You can't tell me those sheep and goats are having a heck of a time with mountain lions. In the room there was a lot of cat hunters that i personally know.(i don't hunt cats or have dogs) I have nothing against those guys. Great sport! They're worried about their future and being able to hunt mountain lions. I understand that. BUT! I have had to change where I've been hunting for the last 5 years for deer. A spot I've known for years, I actually logged nearby the area 20years ago. It's been loaded with deer for years. Now the last 2 seasons deer population in this area is 5% of what it was when I started hunting the area. This year the most deer we saw in 1 day was 10. 5 years ago we had days we saw 90 to 120. Im sure some were the same deer but a huge decline in numbers. We saw muledeer and whitetail both. As soon as you start seeing mountain lions and lots of their tracks and scat, you can count on the herd going away fast. We have seen mountain lions every year except this year. What I took away from the meeting was you

want to spend \$100,000 a year to see where you need to remove more cats, and another project coming soon to see what exactly they eat and how much. We all know they are killing way too many deer and elk in region 1 for sure. Hunter's I know have told me they can go to Idaho and kill deer and elk cheaper now and easier than here at home, because Montana cares more about managing predators than the deer and elk. I believe we should worry about our state and not so much about the recovery of mountain lions in general. I think we should have over the counter tags for mountain lions to be killed statewide. A 24 hour report period and up the quota 25% for 2 years. See how many lions are taken in archery and general season, along with dogs and set the next season after we see how that works. We don't need lions on the east side, those deer and antelope have enough disease to deal with already!

62 Brian wilkins N/a Libby MT I usually have 8 game cameras out all summer and fall we don't have a shortage of predators one camera had 8 wolves and 4 mountain lion no elk 2 moose and 5 mule deer more than likely the lions have taken care of the mule deer every year the Same story 2 points or spike bucks and this spot is 7 miles behind a gate nobody is shooting the small bucks so there should be 5 or 6 year old bucks never going to happen with all the predators game cameras don't lie up the quota on lions have different permits for toms and females or go back to the old way forget the permits and go to a quota like bobcat when you hit the number it's over people won't be picky and not filling the quota I seen one of your collared mule deer on one of my cameras all summer not any more cat got it wake up region one biologists it's not winters that is killing our wildlife or hunters it's all the predators bears lions and wolves we will never get the hunting back like it was in the 90's I seen it it was awesome wish my kids could have hunted with me back then !!!!

61 Keith Fisk Pierre SD I support the current level of lions in MT, keep managing status quo. Thank you.

60 Chuck freeman Columbia falls mt MT I think we need to go back to the license and quota system the special permit system is not working. Not enough lions are being harvested in the hunting districts mostly toms are being taken allowing for a female and kitten population explosion. which are killing way to many of are deer and elk

59 Dr, Linelle Wagner self Hot Springs,MT & Ajo, AZ AZ This is good! A biologically accurate assessment of actual identifiable individual lions, something we should have had years since, will be a valuable thing.. Plus, get all those avid young biologists with good shooting skills out there, and really generate some specific lion info, location, maybe movements, the possibilities are great!! All for real biological info. This is good !

58 Michal Sniezko Lemont IL Overall, the proposed management strategy for mountain lions in Montana appears to be a step in the right direction. I did appreciate that the plan demonstrated why a traditional capture-recapture model for estimating population abundances for the Montana mountain lion populations was inadequate and would provide managers with an unreliable population estimate from which they would have to set harvest quotas. Instead of capturing and recapturing lions, the plan proposes to use a newer technique known as spatial capture-recapture. This model does seem to be an improvement over the capture-recapture in that it accounts for the movement of lions in and out of territories. It does involve genetic sampling, which is acquired thru means to biopsy darts to collect muscle samples, as well as hair and scat collection. I would assume getting chased up a tree by a hound and then darted ever so often could be extremely stressful for a lion. As a suggestion, if the hair and scat collection prove to be enough to gather DNA information about an individual, maybe reduce the amount of darting to not stress out the animals as much. In such a way, costs for the plan could be minimized by not having to contract hound handlers to sample the mountain lions for muscle tissue samples. Other than that, the plan does have a sound strategy on how the sampling will occur. I do understand why only 3 out of the 4 regions outlined will receive the sampling treatment. Yes, the 3 western regions do account for

most of the state's annual lion harvest, but wouldn't it help to have sampling and data consistency across all four regions, even if the fourth eastern region doesn't get sampled as often? The plan does state that local managers of the fourth region can choose to opt in to sample abundance, but since mountain lions are a species that occurs at low densities and disperses often, that does mean that individuals in the 3 monitored areas could move to the fourth region over time as well. Having the same sampling techniques implemented in the fourth eastern region could give a better understanding on the state's overall mountain lion abundance.

57 Randall Knowles Financial Advisors GREAT FALLS MT I have seen the presentation and it makes sense to me, BUT what I have learned is that managing wildlife is fickle. Therefore, we should not fall to far in love with this new plan and be flexible to make changes quicker than initially anticipated. AND pay attention to commenters like me, who are in the field. The grayer the hair the more you should listen.

56 Mark R Olson Philipsburg MT It is past time to reduce these predators population due to the loss of game populations all over western Montana. I live in the Flint creek area, and the numbers of deer and calf elk that have been killed has just about eliminated all of the deer in our area. The game has moved out of their natural habitat, on to private property for protection from these predators. The historical populations of game in this area, and others, has gone to near 0. Hunting on public land is a waste of time, due to lack of "ANY" game. The number of hunters is down due to the lack of game here. Why buy a license to hunt game that doesn't exist?!

55 David Brown Missoula MT Just leave the mountain lions alone and let them live. They come close to town and you kill them. You guys should learn to protect and preserve Including grizzly bears. Quit supporting trump and zinke.

54 Marc Murfitt Bozeman MT I believe that your draft document on Mountain Lion Management Strategy is very thorough. In my opinion, lion management is quite simple. Lion management should be tied directly to deer management and more specifically mule deer. For some background, I grew up in Helena and primarily hunted area 391/392. My great grandfather built a cabin in the region in 1935. My family has been hunting the area ever since. My first elk/deer hunt was 43 years ago at the age of 6 with my father and great grandfather. At this time, there were fair numbers of elk and the mule deer numbers were amazing. I remember certain draws that always held 12 to 30 deer daily with 6 mature bucks present. My father commented that he cut his first lion track in 1979. This corresponded to my initiation into hunting this area. The area has gone from a mule deer rich region to a region in which mule deer are damn near extinct. Oh, there are a handful that live around the lake in people's yards, as well as, around the farmer's ag fields. Mule deer in the mountains of 391/392 are gone. I spent over 20 days in the area from archery through rifle season. I saw a handful of mule deer does and 1 2x2 buck. Pathetic management of a big game resource. I believe that the mountain lion is the culprit. Lion harvest numbers from your management plan compliment my assumption. I also hunt lions every year in 391/392. There is no shortage, several times over the last few years I have cut tracks of 4 lions traveling together. A female and adult kittens. In conclusion, the plan should be to reduce the lion numbers dramatically in regions where deer are non-existent to struggling. The state of Montana sustains much more revenue from 10's of thousands of folks hunting deer and elk vs the few thousand that purchase a lion tag. MFWP needs to stop catering to a handful of hound handlers that just want to cut a track every time they go out to hunt. I know habitat and weather attribute to the deer numbers, but nothing is more toxic to deer populations than the Mountain Lion.

53 Bobby Sutton Sheridan MT I support the proposal

52 John Stucky FLORENCE MT As much as I like lions, there are way too many. The deer and elk herds cannot continue with this level of predation. Please increase the hunting quotas and extent the seasons until this problem is corrected.

51 Richard LaMarrN/A kalispell MT their are way to many cats and has been for some time, now to many in the cmr. what so why the public comment manage the game that's why you are their, same with the wolves area's around the flathead near gameless but still sell tons of harvest tickets, seems its about the money not the game.

50 Patrick Flanagan Eureka MT We need to go back to a quota, nowhere near enough cats are being killed with the draw system. We also need a 4 point rule on whitetail

49 Josiah Baer Kalispell MT It seems like there are more and more mountain lions in the woods. I have seen several just when I have been deer hunting. The deer and elk populations are nothing like they used to be so we need to get the predator populations under control so that the deer and elk population can rebound. So the more hunting opportunities for mountain lions the better.

48 mark girdler helena MT one question, one comment... Q: any time i see the term 'management', i imagine some sort of plan to go about killing these creatures, so i have to wonder: are there so many of these cats in the wild that we have to manage them? C: i don't trust you folks to do the right thing, i am sorry to say. what i expect is you come to some conclusion that these animals have to be ...wait for it.... 'managed'. consider me in opposition. just like i am with your deer 'management', and your wolf 'management', and your bison 'management', etc. quite a track record you folks have

47 Norman Bishop Bozeman MT Thank you for the opportunity to comment on the subject strategy. Because I studied wildlife management in graduate school, and was involved in restoring gray wolves to the northern Rockies for decades, I have developed a keen interest in conservation of native carnivores. I have served for several years on the FWP R3 Citizens Advisory Committee, and appreciate the work you do. I am impressed with the thoroughness with which you have addressed the issue. I applaud the goal of maintaining sustainable populations of mountain lions, as well as abundance, diversity, and distribution of large predators. I would only hope that, where possible, Montana could allow predator populations adequate to perform their essential role in maintaining the health of their large ungulate prey. We are all painfully aware that chronic wasting disease is spreading across Montana. I am disappointed that no mention is made in your strategy of the potential role of mountain lions in limiting CWD. For some time, I have been forwarding information about the potential for large carnivores to limit CWD to Montana Fish, Wildlife and Parks, and to my members of Congress. Here is part of my recent message to Congress, in response to Rep. Duffy's H.R. 6784 bill, the Manage Our Wolves Act. I see that Rep. Duffy's H.R. 6784 bill, the Manage Our Wolves Act, to remove all wolves from endangered species protection has passed the House. Because I have been involved in restoring wolves to Yellowstone and the northern Rocky Mountains for three decades, I find his bill unconscionable. Wolves and other large carnivores are essential to the health of the ecosystems on which our game animals and we depend. Wolves have been shown to be capable of reducing or eliminating the spread of brucellosis and chronic wasting disease (Hobbs 2006, Wild et al 2011), in part by reducing density and group sizes of elk and deer. Wild et al concluded, "We suggest that as CWD distribution and wolf range overlap in the future, wolf predation may suppress disease emergence or limit prevalence." Cross et al (2010) wrote, "(T)he data suggest that enhanced elk-to-elk transmission in free-ranging populations may be occurring due to larger winter elk aggregations. Elk populations inside and outside of the GYE that traditionally did not maintain brucellosis may now be at risk due to population increases." We should also consider the services that wolves and mountain lions provide, that can avert epidemics of wildlife diseases. Bruce L. Smith, in his 2012 book, Where Elk Roam, warns us of the danger of concentrating elk on feed grounds, because of two serious diseases: brucellosis and chronic

wasting disease CWD). Noting that Wisconsin has spent \$27 million depopulating its whitetail deer to curb CWD (and no CWD had been detected where wolves live), he traces the inexorable march of CWD across Wyoming. “Recent modeling suggests wolf predation may suppress CWD emergence in deer.” A recent study demonstrated that mountain lions also select CWD-infected mule deer (Krumm et al 2010). There also was a field study that reported on mountain lions and elk in an area with prion disease: Sargeant et al (2011) reported on the effects of chronic wasting disease (CWD) and cougar (Puma concolor) predation. They studied mortality and recruitment of elk (Cervus elaphus) at Wind Cave National Park (WICA) during 2005–2009, and found that Chronic wasting disease, increased predation, and reduced recruitment reduced the rate of increase for elk at WICA to approximately $\lambda = 1.00$ (SE = 0.027) during the past decade. Lower rates of increase are mitigating effects of elk on park vegetation, other wildlife, and neighboring lands and will facilitate population control. This confirms that top predators are essential to the regulation of wild ungulates. As a former big game hunter, I have watched the effect of wolves on hunting opportunity, particularly for elk, in Montana, Idaho, and Wyoming. In all three states, elk have increased substantially since 1995. An MSU student studied the effect wolves have had on hunting in Montana. In his masters thesis, *The Impact of wolves on Elk Hunting in Montana*, MSU graduate student Steven Hazen (2012) wrote, “Since wolves primarily prey on big game, Montana’s hunting industry will likely be impacted in various ways.*** Overall, wolves decrease hunter applications by 19.9% of the standard deviation in the southwest and 2.9% of the standard deviation in the west central region. This corresponds to 286 fewer applications in the southwest, but only 6 fewer in west central Montana... (U)sing the current data available wolves are not having a significant effect on elk harvest in Montana. On the other hand, they are shifting demand in the southwest region from areas in close proximity to the border of YNP to areas farther away.”

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46 James Jonkel MFWP R2 Missoula, MT MT We need a chapter on Living with Lions---that is a chapter that addresses the education, outreach, stewardship, best management practices, etc. I sent in a chapter with suggested language last spring.

45 Delaney Missoula MT have to learn more

44 John self,inc Anaconda MT Dear Public Servant In the Anaconda Area my opinion is that the ecosystem is out of wack. You have large groups of deer living in town the entire year, Bighorn sheep being mowed down by cars because they are eating the salt sprayed for deicing West of town, an entire family of 4 Mountain Lions wiped out for eating domestic goats on a property that borders recently purchased winter Sheep range, and lastly the prevailing mindset that anyone that sees a mountain lion is able to dispatch it because they feel threatened without worry of being held accountable. Speaking of accountable isn't it a violation of policy for Bighorn management to have domestic sheep or

goats in proximity to Publicly purchased Bighorn Winter Range? The Public deserve better management and so do the wildlife resources. Thanks for letting me express my opinion.

43 Dorian V Boling Libby MT I believe the strategy is a good idea. I am happy that FWP has come up with a way to try to manage mountain lions. I do not believe we are over ran with them but I do believe we have a very healthy and growing population of them. I hike, fish and hunt a lot so I typically know what animals are in the areas that I go to. I really hope my public comment gets counted and read, but seeing this last spring my public comment on multiple things never got counted I am not hopeful that my opinion gets heard and that offering it up is even worth my time anymore

42 Stanley T. Burk Burk Const. Inc Eureka MT You're putting a lot of pressure on all mature Toms, while there's an abundance of sub adults and good population of females. Put out some kill tags for sub adults and lesser cats for the houndsman.

41 Mike Kendhammer La Crosse WI mountain Lions and Wolfs need to be in some kind of program alone with Bears I don't believe our Elk population is growing. predatory need to be held in check. if not the balance of your wildlife will suffer. Ask for volunteers to help with the surveys. You must protect your other animal resources. Bears and Wolfs are out of control and more Lions are being spotted. Let me know if I can help. Thank you Mike

40 Laurie Lohrer Lewistown MT At what level is removal of mountain lions considered "necessary"? I'm opposed to any hunting of any animal (including mountain lions) not used for human consumption. I'm also opposed to trapping, snaring or the use of dogs.

39 dan boone martin mcallister MT where I live there is at least 4 cats with in 2 miles of me tracks and people seeing them. also I contacted you about no deer here. 100 to 150 last feb and now in same field 5 or 6 . to many cats

38 Ed Bukoskey Rosebud MT Having lived in Colsrtrip many years and now Rosebud, the number of cats killed within 40-50 miles seems very large, 4-5 around Forsyth alone last year. We need better counts. Mule deer in our area are greatly reduced, probably because of last winters snow depth. We don't need too many cats killing 2-5 deer a week after our EHD problems this fall.

37 fred fagan thompson falls MT use wolves to take out the cats and then transport the wolves to the next area. When the cat problem is eliminated, eliminate the wolves.

36 Joseph Vreeland Hamilton MT Having lived in Cougar/Mountain Lion territory in Southern California for over fifty years and having never had any real problems with them - I feel I can add a little information for you. Mountain Lions are not too much of a problem during lion/human encounters unless there are some very specific reasons for them to happen or go sideways. Any wounded animal is always a spooky thing. Any wounded and hungry animal is another spooky thing. Any sick and hungry animal is a problem. That said: 1. Ignorance by a human to understand that these cats are basically interested in totally avoiding adults and those smaller persons who 'make themselves appear larger*' when they are encountered. These cats are skittish and they are constantly re-assessing their situation. They spook easily and turn and run most always. (* to make oneself appear larger, we always just raised the tail of our coat or sweaters above our heads, making our profile much taller and therefor less desirable as potential food. Make lots of noise - this confuses the cat and they re-assess their condition and [most always?] tend to just slink away.) It works. Really. 2. Leaving foodstuffs out and available to the cats was never a real problem for us in SoCal. Dog foods, cat foods, etc., never seem to be of any concern to a cougar. 3. The birth of domestic cattle always seemed to attract the interest of cougars, and they are usually around when the

cattle are giving birth, looking for a weakling. However, coyotes are also in the same area and this may be the reason why the cougars also appear to see if there's a quick meal available too. 4. I personally have been stalked while walking with a child - on a trail just north of Del Obispo Road in San Juan Capistrano. a) I tell you this because this is a very populated and noisy/busy/close-to-freeway but also a well-tree'd and overgrown, darkly arborescent area. b) The lion would advance noisily through the underbrush - and we knew it was there at all times, and we just turned and holding out coats over our heads, the lion quickly stopped any advances and left the area. c) Like I say - they are chicken! 5. Most stories about lions attacking children appear to me to be fables. EXAMPLE} Our whole family was in the Trabuko Canyon/Orange County Park Campground, and at that time we saw the parents of the young girl who was 'looking for pollywogs in the creek" - which is dry from mid-June and this was I believe in July - so the 'creek' was dry and there were NO pollywogs for her to see. We saw both parent under the influence of Hash in their campsite - we had even been invited to their 'Hash-Bash Party' the night before - we didn't go. These 'parents' had no idea that their daughter was gone - let alone where they themselves were, they were so out of it! Negligence by them put their child in peril, but frankly, the cougar just bit her on the head and realized this was not traditional food and it left after that recognition. The County Of Orange, CA paid out to quell the lawsuit that would have been much worse for them - I don't blame them, but this set a bad example. Insight-fully, I don't see that there is much of a problem if there are more or less cougars in Montana. These cats can live in very crowded conditions, and they seem to get along with each other if they are encroaching on each other's territory. There don't seem to be any real 'turf wars' by cougars. If you ask me about bears - we've got something else to talk about. But these are cougars/mountain lions/panthers and they are not the devils with claws that people believe them to be. They REALLY are afraid of human encounters. Pet dogs, cats, a chicken or two, raiding a trash can (not much of a problem) - and maybe a small child might attract their attention, but we all run the risk of Sasquatch going cannibal on us, more so than an invasion by a cougar in our back yards. Parents - if they are stupid, on drugs or drunk or just don't care about their children - could be problematic. Taking care of their spawn seems to not be a priority for/by them. I feel sorry for the child, but frankly, they are pretty safe from a cat attack. I hope your people of science can divide myth from fact here and keep the cougars off the gun sights of hunters and homeowners. Bears? Not so much love by me. Thank-you for any consideration..... Joseph Vreeland Hamilton Montana 406-360-6415

35 Eric A Amborn GREEN BAY WI Unless you are going to kill them all, your strategy sucks.

34 CARL ALGEESKY HORSE RANCHBELT MT MY ADDRESS IS 468 EVANS RICEVILLE ROAD. I LIVE IN THE LITTLE BELT MOUNTAINS NEAR TIGER BUTTE. I FEEL THE MOUNTAIN LIONS HAVE JUST ABOUT DESTROYED THE DEER POPULATION IN THIS AREA. I'VE SEEN FIVE AND A BIG TOM WAS KILLED ON HWY 87 NEAR BELT. HE WAS EATING GOATS FROM A RANCH WHICH BORDERS HWY 87. JUST MY OPINION FOR WHAT IT'S WORTH. THANKS FOR THIS OPPORTUNITY. YOU GUYS DO GREAT WORK. THANK YOU

33 Darrell Hunters hate mountain lions and wolves. Most hunters will shoot them on sight

32 Dunham Larry Condon, MT Since the days of not allowing dogs to trail the lion they have increased many fold in the Swan/Seeley area. The lion is one of the major killers of deer and elk in this area. Increase the limits and include some better wolf hunts along with it.

31 Ed Moeglein Mr Wolf Creek MT We border large ranches and remote human population. I watched lion hunter along Little Wolf Creek road and their success doesn't seem to even

dent the population. The lions come from areas that are not pressured and we always have 4 or 5 lions in a 2-3 mile stretch of Little Wolf Creek road. Sometimes as many as 7 or 8 cats in this area. Mule deer and elk population is falling here from predators, allowing doe mule and whitetail hunting, shoulder season for elk. 4 years ago we had a herd of mule deer in the area that numbered 30-40 in a group and now at the end of this season, we don't see any deer. 3 years ago we had a female lion with 3 kittens and by spring we counted 13 deer and elk skeletons along French Creek. Eaten to the bone and not torn apart or scattered. Doesn't seem to knock down the numbers of lions with hunting and trapping here!

30 bruce smith rexford MT have encountered more mountain lion sightings and sign the last couple of years than almost all of the 35 years combined that i have lived here in northwest montana

29 Rick Holzheimer Great Falls MT I believe we have many more lions than necessary. I have a cabin near Monarch and have pictures of lions on my road to cabin every week. They very bold and have killed deer right in front of us and our neighbors. Locals believe we have 9 different lions in the area that have dogs to hunt lions

28 phillip Belisario butte MT kill them all

27 Mike Price Whitehall MT I grew up over by Missoula and still come over to hunt my hounds in the bitterroot, missoula, superior, trout creek, flathead areas. I have hunted hounds now for 16 years and I love the sport. I do believe the permit system has killed off the older nice toms but has made more lions for us to chase. I would like to see the state of MT all permits or go back to all general tag. I am not against outfitters at all but would like to see them only be able to harvest 10% of the quota, its hard to compete against an outfitter that has 10 trucks out there running when its just a buddy and I. Another way the MT FWP could make some extra money is by putting in a set amount of permits like Idaho does with their hound hunting. do like 45 permits for the state and put a decent price tag on them plus then they have to buy the out of state lion tag. We have been saying this for years at the FWP meetings. It would be a great way to bring in extra money. Here where I live we don't have a lot of road systems to run and we have several lion hunters from Idaho, wisconsin, washington, and Wyoming here every year. Back when the state was general tag there was never a problem of filling quotas. I understand that quotas are filling now with the hybrid season so if that is working why not make the state that way, or lets just go back to general tags. I don't believe we need to be spending all this money on studs either.

26 John S Ester Stevens Point WI I'm very glad to see that this plan includes a divergence from the utilization of index measure. For a class I've been tasked with assessing the population measurement methods employed by this plan. I'm unfamiliar with SCR, and my unfamiliarity has limited my ability to critique the methods. The methods set out by Proffitt et al. appear to be a step up over previous methods in their biological considerations (highly mobile and low density populations). One practical aspect that concerned me when reading the methods set out in Proffitt's paper is that dogs are employed to tree the mountain lions for sampling. This method is likely to put the mountain lions through significant distress, and endangers the dogs. This sort of impact could change the behaviors of the populations being measured over time, so I hope that the future sampling methods under development that were in-explicitly mentioned in the management plan will more heavily consider the invasiveness of the procedure. If you get a bunch of critical comments on the statistical methods from Stevens Point, take them with a grain of salt please. We're undergraduate students with only a few statistics classes completed.

25 Chance Proehl UWSP Stevens Point WI I find this plan quite extensive and well thought out. The process by which genetic data is collected is thorough. The process of doubling back to find a

second high quality is a great idea of a safety net if the muscle sample is poor. Also the process by which the samplers eliminate cells seems to be a great idea. With eliminating cells that already had samples collected and reassigning the hound handlers randomly to cells that have not produced samples, this approach appears to be more efficient. Moreover, the openness to include other data collection techniques is a wise decision. More data usually means more accurate estimates of the population.

24 Madeline Abbatacola Stevens Point WI Doing the population as a whole based only on harvest aged animals is a concern to me. If the model assumes the birth date is July 1st, then the winter counts will not include all the new individuals. Why were the Garnet Mountains chosen to be the basis for the IPM? Is it reflective of all habitats that would be hunted in Montana? I think this could be better explained the public in the briefing. I am assuming since the plan is to use genetic data, the labs will have the capacity to process the data in a timely fashion. Because it is using genetic data, is there a back up plan in case only a few sample provide sufficient DNA amplification or if the lab is not working? The largest cost to the sampling method is the hound handlers. Has a procedure for collecting genetic materials similar to the bear sampling done a few years ago in Montana been considered? I am not as well versed on lion behavior but would setting up a barbed wire square with an attractant in the middle be effective in collecting hair samples? I agree the traditional mark-recapture is very pricey and the indices are not useful unless the functional relationship is already known, which is often hard to determine. But this method still seems pricey and appears to have several pieces very dependent on budgets, such as sampling efforts and where the sampling will occur. I am concerned if budget issues appear in the future, the sampling effort will suffer and impact th model. With the statistical and budget limitations, this plan does seem to be the better choice of current options to monitor and set harvest regulations. This portion is not related to the proposed monitoring plan, but rather the design of the document. It was hard to review the maps in chapter 4 based on their orientation, it would have been nice to have it rotated. Likewise, at times the bold text was challenging to read as the i's and l's blended together.

23 Conner Stevens Point WI This strategy has a lot of different parts that are all critical to be smooth flowing without flaw for everything to go as planned. Although nothing ever seems to go as planned in the field, there are always back up plans in science. Especially natural resources because of the untimely happenings in nature. With this strategy they in fact do have a backup plan in the darts that will get a muscle sample to get DNA from the specific animal. I believe this strategy will work for years to come and become better with the years to come because of the sheer size of the study and the information they will get each year to make this better for the upcoming years of mountain lion management.

22 HeatherUW- stevens point STEVENS POINT WI SCR is a great way to get a population abundance. The understanding why you chose this technique makes sense because mountain lions have such large range and SCR is less invasive. But from what I have learned females have a smaller range and stick to it, as for males it is way larger. That being said, I wonder if this can mess up the population abundance because then males can be missed, or even numbers can be higher because young lions will be with there mothers and they will be easier to find. In addition, it is stated in chapter 5 "FWP has identified permanent Trend Monitoring Areas within each of these three western ecoregions which will be sampled on a rotating basis" are you not worried you will just be counting the same mountain lions at that station? Lastly, I am still confused how you are counting the animals by having someone sit and look? Or cameras? As you stated mark recapture is marking an animal and seeing if you catch it again. SCR is not as invasive so how will you be collecting the data? I do agree this technique is better then what was done in the past with going off harvested animals.

21 Jamie Schlimgen Stevens Point WI Sounds like budgeting is a huge problem to properly monitor this species. A cost effective and reliable way to monitor this species would be to use hair snares, trail cameras and harvest data. SCR sampling has its benefits. Sounds like it will help with

the downfalls of the CR model. This is by accounting that the animals will be moving around from one place to the other.

20 Zack Loken University of Wisconsin - Stevens Point Stevens Point WI I agree that spatial capture-recapture (SCR) is a scientifically sound method for producing estimates of mountain lion population sizes in Montana. However, I feel that the permanent Trend Monitoring Areas, in each of the three ecoregions, ought to be monitored yearly rather than on a rotating basis. I might also suggest that a mark-recapture (MCR) approach be used in the Supplemental Monitoring Areas the year following a SCR analysis. For example, implement an initial bait-station checking period (to get an initial value for captured individuals; i.e. 'M') and follow it up with a post-season hunting harvest survey (to get a secondary value for captured individuals; i.e. 'C'); if you use a bait that leaves chemical traces in the bone marrow (e.g. broad-spectrum antibiotic) or dentition of a mountain lion, you can then acquire bone/teeth samples from harvested individuals and count how many had traces of the aforementioned compounds (to get a value of recaptured individuals; i.e. 'R'). I greatly approve the decision to split the monitoring effort into equal sized ecoregions in effort to better understand the relationship between mountain lion density and habitat quality. Although you do have plans to continue gathering individual monitoring data from the DNA biopsy darting efforts to compare the results of SCR sampling with, I still suggest the previously mentioned MCR method be implemented during the year following a SCR sample.

19 Carly Rhyner Stevens Point WI I like how they start with how important it is to have accurate numbers for abundance. They note that the current ways are problematic and that indirect population indices are typically inaccurate. However, in the Interested Person's Letter, it said that there were four ecoregions in interest but only three are listed in the management plan. They also say that the new ways of estimating abundance will not be as cost effective but I do not recall reading where these funds will come from. I wonder if they will be receiving more grants from the government or will they have to take money from other programs? Will they have enough to do this every year like they state? I also really like that genetic sampling will be utilized. I think that genetic sampling is really important to understand populations better and to get more accurate estimates. Overall I think this is a well written plan and I do think it is important to have accurate numbers for better harvest quotas. I believe that the proposed plan will give more accurate results, especially since it is stated that they will change their approach as they see fit overtime.

18 Kaylie Petersen Iola WI I think the idea of a spatial capture and recapture (SCR) model that builds upon and improves a conventional mark recapture study is a great idea. The use of multiple models to account for different aspects and the use of two sampling methods makes for more parameters that account for lots of lion characteristics that are left out of past lion population estimate models. However more parameters in a model doesn't always make it the best model, because more parameters make the model difficult to apply to other study areas. Also, the methods used to gather genetic data on individuals in grid cells, using trackers is a good idea but, how can a cell be completely surveyed meaning genetic samples from every lion was collected from that grid. Due to the habitat and cryptic behavior of lions they can easily be missed and not sampled. Even with tracking dogs, it will take a lot of effort to sample areas, especially if the terrain is rugged. Perhaps a form of a distance sampling approach could be used to account for abundance in the three different areas being sampled.

17 Laura Elaine Simonson STEVENS POINT WI I think this monitoring approach, which uses backup samples such as scat and hair with biopsy darts, is a much more secure method to sample mountain lions than basing population estimates on previous season's harvest data. The plan also makes a good distinction between sampled cells and surveyed but not sampled cells.

16 Daniel Meyers WI Hi, after reading a few parts of the Montana Mountain lion plan a few pros and cons stick out to me, some of the pros being you are implementing a genetic

sampling to looking at basically groups to see who is related and who is emigration and integrating. I think that will help give a good idea on a lot of your population dynamics, On the other side on con that I saw in my opinion was this statement: "Although each day's search effort will begin in a randomly assigned grid cell, more overall search effort will be dedicated to cells with higher quality habitat.(Figure 39)." (page 94) even though yes there is higher quality habitat I think there should be equal amount of effort in each zone to have less bias and better more effective data and have less unknowns. for example you could have had a bad habitat assessment and you could be missing out on data because you want to spend less money and time.

15 Dustin Brochtrup University of Wisconsin- Stevens Point Stevens Point WI I feel like gathering genetic information on the Mountain Lions tracked and darted is a great way to identify the sex of the animal. I feel as though it gives you a much more accurate idea of the numbers of each species in your population rather than using sight to try and guess the sex of the animal you have treed. I also feel that it is a good idea that you're gathering back up samples for each Mountain Lion tracked. This will allow for more accurate records of the animal being identified in the field. Also, breaking up the study areas into a grid system is a good way to assure that the whole state is being sampled evenly giving you the most accurate population estimate as possible. This will then allow you to manage Mountain Lions in the most efficient way possible to make sure you have a healthy population on the landscape for both hunting and viewing.

14 Haley Whitehouse Stevens Point WI The proposed way to monitor mountain lions includes the species biology and relevant habitat that could be used by the species, which is good because then the area that you are sampling represent the population within the area. The high amount of sampling effort will allow for a greater number of individuals being sampled and it will allow for a more accurate estimate of the population size than a population index would. It also allows for a thorough search of the area to try and find as many individuals and other genetic information. The plan mentioned that the team will need a high-quality sample and a low-quality sample, or multiple low-quality samples, but what happens if only one low-quality sample can be found in that grid at that time. Will they go back out another day to find more and if they can't find another sample is that cell considered not sampled? I like that a cell needs to have enough data in order to be counted as sampled and it will be sampled until the teams find a sample. Having a monitoring approach that includes individuals that are migrating through is a good idea because that allows for the population data to reflect on the mobility of the species as well as showing recruitment to the population. The supplemental monitoring is happening a year after the trend sample, but is the supplemental sampling happening yearly and how long is the time frame between each trend sample? Funding, as mentioned, could limit the amount of sampling that occurs, so how will you figure out the quota for hunting when there isn't a monitoring sample done that year? There isn't much of a baseline yet for the population to understand the population growth rate and the recruitment that is occurring, so this monitoring will have to go steadily for a couple years, but what if there isn't enough funding for it. Then what will the hunting quotas be based off? I was also wondering how handlers are deciding what is a fresh track and what is an old track. Is it based on when the last snow fall occurred?

13 John Korpela Stevens Point WI I like this management approach. I noticed you are not interested in immigration or emigration, but what about possible movement between the four different lion habitats? I'd be interested in understanding how much they travel between the different lion habitats during winter.

12 Brad Kalispell MT I think we need to change the male/female tag system. Having a quota on males makes it impossible for anyone to hunt a big cat because it's a race to try to get a male killed in draw districts. Maybe do a male only or female only tag that way people can hunt all season for a large tom

11 John McFarland Helena MT Would like to see a bounty paid on lion and wolf kills like the old days. We have to many of them

10 Billie S3 Lincoln MT I chase mountain lions with my hounds, I've never collected one due to their not being mature. Cats are being collected solely because they're cats. I support management and such, I do think the population is not being managed accurately, how can one assume population of a species its literally impossible to count. Mature cats of the day are long gone. Maybe a handful throughout the state but their continues struggle for survival continues, the reintroduction of the wolf did not help. In the past few years I've experienced starving Mommas and starving kittens, not because mom can't make a kill but they're being chased of their meal by wolves before they have a chance to eat. I don't know why hit need to hear this from me, all of this you already know. I think maybe, like female, male numbers, there should be a maturity level as to weather or not a cat can be collected.

9 Ray Bergroos retired Libby MT EXCELLENT JOB !

8 Michael F. Shepard -- Select -- Columbia Falls MT Worst whitetail hunting season since the terrible winter of 96-97 locally. Way too predators in region 1,,Lions eat about 40 deer/year...and it looks like this last winter something ate way too many deer. Time to quit catering to the lion hound guys and pay attention to those of us who pay the way,,just plain old deer hunters.Increase the bag limits for lions all over Region 1..

7 Sandy Allen Adams WI We need the big cats to help control the prey animals so they don't over populate and end up starving or coming up with diseases.

6 Jerry McGuire Thompson Falls MT Impressive document, wish this much work would be done on the deer and elk in Region 1! Living in the middle of hunting district 122, the lion population is booming, never seen so many female with kitten the last 3-5 years in 60 year hunting the Thompson. The last 2 hash winter and large numbers of predator have dedicated the deer and elk population. There need to be something done to increase big game numbers.

5 Brett Hyde Gallatin Gateway MT My comment is solely directed towards the harvest numbers. I feel the mountain lion harvest quotas need to be increased across all districts where Mule Deer numbers continue to decline. Mountain Lions are a major reason that MD are continuing to decline across the state. I also feel the districts need to be broken up into smaller districts. Currently, the majority of Lions are killed in a couple core areas across the districts. By breaking the districts up into smaller ones, you can better control and monitor the populations, and ensure harvest is made throughout the Mountain Ranges in the districts.

4 Michele M Dieterich Ms. HAMILTON MT Thanks for working to maintain lions in the State. However, I am very wary of separating them into 4 Lion Ecoregions. Separating populations for management reeks of the recent grizzly and wolf debacles. By creating 4 different regions, and then deciding on a "sustainable" population for each does not promote creating and protecting new habitat areas outside these regions. This document should recognize, designate and protect areas for the lion populations to grow into and use as their habitat and food sources dwindle thanks to climate change, growing human populations, and development Education is not even mentioned in this document, but it is one of the most important concepts needed to protect lion populations. A detailed and well funded education and outreach program is vital to successful management of lions. Teaching human populations and the ranching industry how to live with lions and prevent lion conflicts will go further to mediate conflict and manage populations that any other item. It must be included and funded before going ahead with this strategy. It is often less expensive to educate ranchers on how to prevent livestock loss and assist

in implementation than to manage problems caused by lack of education and planning. This strategy does not mention how these animals will be managed. But it should. Hunting should not be a part of any management strategy. Education and habitat will be the key to any strategy success. Thanks for taking my comments.

3 Terry L. Zink Zinks Big Sky Archery Targets Marion MT I have read through and I can say I am, we could add a couple more Lions to HD 120. Thanks; Terry L. Zink

2 Harold Johnson Mr. Plentywood MT We have to many Mountain Lions. Please allow more hunting of Mountain Lions to occur.

1 Shane Hale Helena MT I feel it is best to leave them alone.

Email/Letter Comments:

From: [Penny Maldonado](#)
To: [FWP Wildlife](#)
Subject: Comments on Montana Mountain Lion Monitoring and Management Strategy
Date: Friday, January 11, 2019 12:23:51 PM

Thank you for the opportunity to comment on Montana's Mountain Lion Monitoring and Management Strategy.

The Cougar Fund is a 501c3 organization based in Wyoming with members in all 50 states including Montana. 85% of our annual budget is dedicated to conservation education. While our Board of Directors and the majority of our members hold the value that recreational hunting of predators is not acceptable, we do acknowledge that Montana Fish Wildlife and Parks (MFWP) manage within your state's statutes that allow trophy hunting of large carnivores.

The Center for Biological Diversity is a non-profit conservation organization dedicated to the conservation of native species and their habitats through science, policy, and environmental law. The Center is supported by more than 1 million members and supporters, including in Montana. The Center's work includes working to facilitate the protection and conservation predators, including mountain lions. Like The Cougar Fund, the Center does not support trophy hunting of mountain lions. However, we provide the following comments with the recognition that we can find common ground on ways to improve the current mountain lion plan. We also hereby incorporate our comments sent to MFWP on July 20, 2015 regarding MFWP's mountain lion management plan.

In this regard, our comments will focus on those areas of the strategy that represent our shared interests related to the biological, educational and social aspects of this draft strategy.

Areas of primary concern

--[if !supportLists]-->• <!--[endif]-->Protection of females, and of females with dependent young.

--[if !supportLists]-->• <!--[endif]-->Education about mountain lions by MFWP to Montana's public, including those who do not hunt.

--[if !supportLists]-->• <!--[endif]-->Conflict prevention and reduction practices as a priority solution to depredation.

- Utilization of a proactive and flexible response plan for situations involving lions in developed areas
- Demographic monitoring of mountain lion populations to ensure authentic hierarchical populations which include dominant males, reproductive females, females with dependent young.
- The opportunity for dispersing young to reach areas of **appropriate** habitat to encourage expansion of the range of the mountain lion in north America.

Protection of females

While Montana already prohibits the taking of a female lion accompanied by spotted kittens, we would like to suggest that this regulation be amended to protect any group of lions traveling together, regardless of spots or size. Lions are not pride felids and the probability that a group of lions is a family (female with dependent kittens) is very high. This change would remove the likelihood of a hunter killing a kitten where spots are not easily seen. Therefore, we respectfully request that estimates of age or evaluation of spots be replaced by the protection of groups from being taken.

Education

We know that MFWP has an exceptional education facility in Helena and ongoing programs about living and recreating in lion country. We support the outreach and education provided. An extremely important element of this strategy is the commitment to *'enhance public appreciation for mountain lions by providing insight about their role in the ecosystem and practices for living and recreating in lion habitat'*. It is vital that early and ongoing education helps the public fully comprehend the ecological contribution of mountain lions to increase social tolerance and appreciation of mountain lions in Montana. Fear and myth often cause negative reactions rather than measured responses. We support this intention to further educate, and suggest that this is an area of common ground where shared information could reach a broader constituency of Montanans if the material targets many different wildlife enthusiasts, as well as urban communities. We are anxious to see the specifics of how MFWP will expand their current educational programming and develop this conservation guideline.

Conflict Prevention and Conflict Reduction

We support the ongoing efforts to reduce conflict through education, and through

collaboration with Montana's Livestock Loss Board. We encourage grants for mitigation efforts and suggest that increasing compensation for livestock loss when the owner has employed verified mitigation attempts would be beneficial to growers. If the mitigation works, they do not suffer losses, and if depredation still occurs after mitigation is reviewed and found to have been appropriate and properly employed, then they are encouraged for their efforts.

Hobby farmers are a priority group for conflict prevention education. Creative means to harness their enthusiasm for small scale animal husbandry is a challenge in many states and the incidence of conflict among this demographic can be disproportionately high. Montana has the additional challenge that many hobby farmers are relatively new residents. Raising small livestock close to abundant wildlife within a multi predator system requires functional and informational support from MFWP. While MFWP is limited to following local ordinances, it may be possible for a supporting organization (Friends Of!) to encourage state, county and town elected officials to include conflict prevention/attractant containment requirements along with land development regulations.

We support the conscientious decision to combine documentation of all mountain lion mortality, including road kill, USDA Wildlife Service response, Agency removal or hunter activity. We respectfully request that MFWP further examine the mortality and/or debilitating injury caused by trapping. In this regard, we suggest documentation of mortality is augmented by examination of the paws and teeth of all lion carcasses to gather data on trauma that might have caused a lion to predate upon 'easy' prey, be unable to physically escape harvest, starve, or be subjected to intraspecies conflict because of a handicap caused by trapping.

Further education of trappers and additional guidance by MFWP to identify areas of predicted lion activity and ways to avoid incidental mortality or maiming of mountain lions is encouraged.

When using the adaptive management plan, it would be appropriate to see closures to trapping in areas of vulnerable or recovering mountain lion populations in addition to reduction or cessation of harvest mortality limits.

Mountain Lion Response Plan

We support this comprehensive and transparent plan. We suggest further development of response options in the case of females, or females with dependent young. While translocation is not always successful, especially for family groups, a per-case assessment by an experienced MFWP biologist may reveal solutions that do not result in automatic removal. Careful assessment of whether a lion is 'just passing through' may also serve to protect young lions as they disperse to establish their own territory.

Demographics of lion populations

We support the intent to *"conserve mountain lions as a functional and valued part of*

Montana's wildlife ecosystems", but we do have some grave concerns about the functionality of a hunted population in regard to the demographic make-up of lions on the landscape. Although scientists are not always in agreement with each-others' findings, there is concern, both anecdotally from users in the field, and professionally by researchers (Cooley 2009) that selectivity in hunter harvested lions removes dominant males from the population. It has been suggested that the result of the desire to take the 'big old Tom' affects the hierarchy by increasing immigration of younger males, risk to kittens from infanticide, intra-species competition, and predation upon livestock by inexperienced lions. The goal of having stable and sustainable populations is one we definitely share, but we do ask that you monitor the demographics to ensure the hierarchical pattern of unmolested lion populations remains and initiate adaptive management protocols in a timely manner. Females of reproductive age and/or status may need greater monitoring and protection, and a proliferation of the adolescent lions that hunters do not choose to target may have negative effects on young ungulates and other lions.

Maintaining connectivity is a positive aspect of the strategy that supports the opportunity for dispersal by young lions and contributes to the possible recovery of mountain lions to appropriate habitats across former home ranges.

In conclusion

This is a huge document which relies heavily on the findings of published, peer-reviewed research. The intention to depend on science and the advantages of emerging technological modalities is vanguard in the field of wildlife management.

We realize that National Parks are considered areas of 'refuge' for mountain lions and other large carnivores, in that management is limited to public safety protocols. We respectfully ask that MFWP consider adding a limited area of 'refuge' to the monitoring and management strategy. By curtailing hunting practices for the purpose of gathering data about many species, biologists would be able to gain insight into the differences that arise in hunted and not hunted populations.

The amount of time and effort that has been expended in designing and producing this model is acknowledged and appreciated. We truly value the degree to which the staff of MFWP have interacted with us, and listened to our perspective as they have worked on this strategy. Special thanks to Jay Kolbe, who has always treated our inquiries with respect and responsiveness.

The Ecoregion overview is a new perspective on mountain lion management and as such, its success will be played out as time goes on, but the principles and protocols are definitely a step forward. While we may have differing values when it comes to mountain lion management *options*, we definitely support the commitment of MFWP, and Jay in particular, to developing this ambitious and progressive strategy and look forward to seeing how the practical application unfolds.

We respectfully submit our comments with our thanks for considering the perspectives of diverse stakeholders.

Penelope Maldonado
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The Cougar Fund
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(307) 690-3937

Andrea Santarsiere
Senior Attorney
Center for Biological Diversity
P.O. Box 469
Victor, ID 83455
(303) 854-7748

From: [Kerry Mushkin](#)
To: [FWP Wildlife](#)
Subject: Proposed Mountain Lion Management and Monitoring Strategy - Public Comment
Date: Saturday, December 15, 2018 12:07:56 PM

We had the opportunity to attend the Montana Fish, Wildlife & Parks (FWP) 11/29/18 Kalispell informational meeting on the proposed Mountain Lion Management and Monitoring Strategy and would like to provide the following feedback & comments:

Firstly, we'd like to acknowledge what a great job Jay Kolbe did with his presentation during the informational meeting and to congratulate both Jay and FWP on the level of public turn out and departmental support.

We retired to Montana four years ago. We are neither hunters, or conservationists, and we don't pretend to understand the history around lion management in Montana. From our limited perspectives, the mountain lion is an iconic symbol of our state, deeply embedded in the Montana lifestyle, and a critical part of a healthy balanced ecosystem. We'd like to see a sustained mountain lion population in our state and believe your proactive monitoring & management model will help to achieve that.

We have written to both Montana District 5 Representative Dave Fern and Senator Bob Keenan to inform them that we attended the informational briefing; believe the Mountain Lion Management & Monitoring proposal to be a solid and responsible science-based strategy and to ask that they both endorse the use of your budget to implement it.

Thank you for all your hard work on this proposal and for promoting safe/ethical harvest practices in general. Please don't hesitate to contact us if we can be of any further assistance in your endeavors.

Sincerely,

Kerry and Tim Mushkin
310 B Wood Run Dr.
Whitefish, MT 59937
(425) 434-7200

Sent from [Mail](#) for Windows 10

From: [paula.rust](#)
To: [FWP Wildlife](#)
Subject: Mountain Lions
Date: Wednesday, December 5, 2018 6:40:02 PM

To Whom It May Concern,

Please protect these amazing Creatures. They are a National Heritage Treasure.

So many schools have the Cougar for their mascot ! We can't kill off the living symbol - Eastern Cougars have been hunted to extinction. Is that how we want to show respect for the Natural World ?

Science shows that we need these predators for a healthy eco-system. Statistics of harmful human - lion interactions are very low.

Hunters shouldn't have the only say. People can take precautions with pets. Ranchers can be reimbursed for losses. Why couldn't problem mountain lions be re-introduced into the Wild areas of other states ? Because Trophy hunting is NEVER justifiable. We should be more enlightened than this...

We share the Earth. We must keep wild lands & habitat intact - We cannot afford for them to disappear.

I want to live in a humane Country.
Please allow the lions to live.

Thank You,
Paula C. Rust

From: [Assistant Amanda](#)
To: [FWP Wildlife](#)
Subject: Wildlife Is Meant To Stay Wild
Date: Wednesday, December 5, 2018 2:59:11 PM

Dear FWP,

Hello! Just a note to let you know
you have a Solid Friend within
Billings.

I heard the radio interview today
about the Proposed Mountain
Lion monitoring.

I disagree with it. I Would be interested to know WHO specifically
approached FWP asking for this, as
i feel its HIGHLY un necessary and also concerned that Private entities
may be Attempting to USE FWP
TO establish whereabouts of Mountain Lions, to sell Illegal hunts
later.

I spoke to Karen today
406-444-3750 about these concerns.

If you Are Ever in Need
of a Volunteer or Free Researcher,
please reach out!

Sincerest,

Assistant Amanda
406-794-4774
assistant.amanda2018@gmail.com

PO Box 80164
Billings, MT 59108

Thank You for All You Do.

From: [Kermit Williams](#)
To: [FWP Wildlife](#)
Cc: [Kermit and Donna](#)
Subject: comment on draft Mountain Lion Management Strategy
Date: Wednesday, December 26, 2018 5:02:32 PM

To Montana Fish, Wildlife, and Parks Dept.:

As a veterinarian who practiced for several decades and dedicated my life to the health and safety of animals and to their humane treatment, I strongly disagree with hunting predators as a means of management. It is inefficient, inhumane, and goes against the majority of scientific research of top predator biologists as a way to control populations or reduce human-livestock interactions.

Growing up in N.M., I was fortunate enough to see my first wild cougar while hiking the juniper dotted mesas east of Los Alamos. I watched the cougar bounding down the canyon walls in awe. My second encounter happened in Central Oregon. Again, I was thrilled to be able to witness this apex predator. Also while growing up in N.M., I was exposed to the culture of Native Americans and was enchanted by their admiration and reverence for many animals, including the cougar. The power of the cougar was demonstrated in the Zuni tribe's handmade fetish carvings, of which I have collected many. The Native Americans think that the cougar represents power of leadership as a solitary and silent animal which can survive the harshest of environments. It is regarded as the Guardian of the North, especially with the directional fetishes.

However, the cougar, being a survivor in harsh environment, has limits to its survival when it comes to overhunting by humans. Trophy hunting and shooting or trapping or poisoning cougars as a means of control has been proven to disrupt the social structure of cougars, especially when a dominant male is removed from his territory, allowing younger and less experienced cougars to move in and act like irresponsible teenagers who end up killing the "low hanging fruit" livestock because of this inexperience of being able to take down their traditional prey. If this research is in any doubt, one should read the scientific studies of Rick Hopkins of Live Oak Associates in California, an ecological consulting firm, or of Dr. Bill Ripple, professor at OSU in ecological studies, or of Dr. Robert Wielgus, past professor and Large Carnivore Lab Director at WSU. I have attended talks given by these scientists.

Rick Hopkins data shows that we kill 4-5 times as many cougars now as was done during the persecution era where bounties were placed on cougars in the early 1900's. California, with a population of 39 million, has had no cougar hunting in 45 yrs. This is happening in a state with an estimated 5 million cattle, and 600,000 sheep! Yes, California will allow cougars to be killed when depredating livestock, but only 100-120 cougars/ yr. are killed, which is a fraction of what other states are doing, with even much less livestock. Compare this number with Utah's 2017-18 kill of 456! His data shows that with increased harvest of females in states that do hunt, that 1300 cubs are orphaned every year! Until cubs get to 15 months of age, there is a low chance of survival.

Dr. Wielgus condemned perception-based management. He tore apart Oregon's 2010 5-yr. cougar management plan which based the state's cougar population on false, perceived

sighting data which was an unreliable metric. He also determined that " there was no scientific evidence that administrative removals achieved any of the stated goals (reduced complaints of livestock depredations, and increased elk calves). He said the Oregon report lacked any scientific credibility. ODFW figures stated that Oregon's cougar population was estimated to be around 6000....which is about the same population that California had, but where there is 1 and 1/2 times the square miles of cougar habitat as Oregon! The conclusion by Dr. Wielgus was that Oregon's cougar population estimate was very inaccurate.

Dr. Wielgus stressed that if the input population is based on unreliable studies, then determining the quota to be killed will be wrong. He demanded that more accurate populations studies were in order and the quota should be reduced significantly while those studies are done. The worst choice is to increase the kill quota when population numbers are not accurate. This may lead to unsustainable populations.

My last comment regards hound hunting of cougars. Oregon twice has voted down this method, and it is not allowed in this state. I condemn this type of hunting as extremely inhumane.

Please use the California model of cougar management, where they are not hunted, and where the law states that non-lethal methods must be initially used when there is any cougar/ human or cougar/livestock interactions or depredations. Trophy hunting is not allowed either.

Respectfully submitted,

Donna Harris D.V.M.



MOUNTAIN LION FOUNDATION

Saving America's Lion

January 11, 2019

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30
YEARS OF
Saving America's Lion
1986 ~ 2016

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Wildlife Division
PO Box 200701
Helena, MT 59620-0701

Emailed To: fwpwld@mt.gov

RE: Draft Mountain Lion Management Strategy

Dear Fish and Wildlife Commission members,

The Mountain Lion Foundation would like to thank you for the opportunity to provide comments on Montana Fish, Wildlife, and Parks' draft Mountain Lion Management Strategy. We commend the FWP and taking strides to ensure that the state's mountain lions (*Puma concolor*) are protected for future generations. We would, however, like to stress a few key points in terms of mountain lion management in the state.

Trophy hunting is the greatest source of mortality for mountain lions throughout the majority of their range in the United States.ⁱ Conservation biologists have established that the practice of trophy hunting is destructive and unnecessary, as it profoundly disrupts a population's social structure.ⁱⁱ Hunting mountain lions results in additive mortality – rates that far exceed what would happen in natureⁱⁱⁱ – and can lead to population instability and decline, as well as an increase in conflicts with humans and domestic animals.^{iv} As such, we would politely request that the Commission consider ending hunting of mountain lions entirely.

The Foundation, which is strongly opposed to the hunting of mountain lions, respectfully requests that the Commission instead reduce future quotas to below the sustainable limit established by researchers: 12-14% adult population. The Foundation asks that the limit be reduced to 10% or less than that of the known population to account for additional human-caused mortality including vehicle strike, incidental snaring or trapping, poaching, public safety removal and so on. Additionally, we request that the use of hounds to pursue mountain lions no longer be permitted, as this practice is not ethical and is not considered to be fair chase.

The Foundation requests these actions for the reasons outlined below:

The quota should be reduced to 10% of the known population to account for any additional human-caused mortality.

In order to sustain viable populations of mountain lions, prevent human-wildlife conflict and avoid compromising the long-term viability by failing to account for all human-caused sources of mortality, hunting of adult lion populations should not exceed the intrinsic growth rate of the population of interest.^v The intrinsic growth rate for mountain lion populations is established by researchers to be between 15-17%.^{vi} Setting human-caused mortality limits at 10% or less of the adult population facilitates the maintenance of home ranges and social stability, reducing the likelihood of increased conflict with humans and population decline.^{vii}

Additionally, trophy hunting of mountain lions leads to an increase in kitten mortality in heavily hunted populations.^{viii} Killing an adult female with kittens results in the death of her

dependent young by dehydration, malnutrition, predation and exposure; even those who are at least six months old^{ix}. This impacts a population's ability to recruit new members if too many adult females are removed, making the population less resilient to hunting and other causes of mortality^x; both human-caused and natural.

As such, we ask that, when making quota decisions in the future, the FWP Commission votes to reduce the number of mountain lions that can be killed by hunters to 10% or less of the total adult population to account for additional human-caused mortality to maintain healthy, stable lion populations.

Killing mountain lions is unnecessary and results in an increase in conflicts with humans and domestic animals.

Studies have shown that mountain lion populations are self-regulating and that killing established adult lions may actually lead to increased conflict with humans as a result of the disruption of mountain lion social structure and increased immigration of dispersing individuals.^{xi}

Mountain lions occur at low densities relative to their primary prey.^{xii} In order to survive, they regulate their own numbers by staying at a smaller population size relative to their prey's biomass or they risk starvation.^{xiii} In other words, when prey populations decline, so do mountain lion populations. Because of these predator-prey dynamics, mountain lion populations do not need to be managed by humans.

As mentioned above, mountain lion populations experience reduced kitten survival rates in heavily hunted populations. This results in a younger overall age structure, which increases the likelihood of conflict with humans.^{xiv} Conflicts with mountain lions are exceedingly rare. Overhunting will disrupt resident populations, eventually leading to an increase in conflicts with people, pets and livestock.

A study in Washington state showed that, as wildlife officials increased quotas and lengthened hunting season, mountain lion complaints increased rather than decreased. The heavy hunting pressure resulted in a higher ratio of younger males in the population as a result of immigration and emigration.^{xv} Contrary to popular belief, killing mountain lions results in an increase in complaints and livestock depredation due to disruption of their social structure.^{xvi}

By drafting its Mountain Lion Management Strategy, Montana FWP has shown that it is concerned with the long-term survival of mountain lions in the state. To ensure healthy social structures and territorial behavior, mountain lion populations should not be hunted for trophies or recreation. This will also help to reduce conflicts with people, pets, and livestock.

Using hounds to pursue mountain lions is unethical and is not considered to be fair chase.

Hounding is an inhumane and outdated sport that has been banned in two-thirds of the United States. Hounding poses significant risk to the hounds as well as to young wildlife, including dependent kittens and cubs, who may be attacked and killed by hounds.^{xvii} Hounds also disturb or kill non-target wildlife and trespass onto private lands.^{xviii} This practice is not fair chase and is highly controversial, even among hunters.^{xix}

Fair chase hunting is based upon the premise of giving the animal an equal opportunity to escape from the hunter.^{xx} Using hounds, especially those equipped with GPS collars, provides an unfair advantage to hunters.

Many proponents of hound hunting claim that hunters can be more selective using this technique. Since hunters can get so close to a treed animal, hound hunting advocates assert that hunters can determine the sex, size, and general age of an animal before determining whether or not they are permitted to harvest that individual. Knowing the sex and other demographic status of the individual being hunted could be helpful in maintaining a viable population. A review of 30 years of records from game managers throughout the western United States found that, although technically feasible, most hunters could not tell the size and sex of an animal up a tree. Hunters had roughly 50% accuracy when determining sex; the same as if they had determined the sex with a coin toss.

For the reasons outlined above, we ask that the use of hounds no longer be permitted to aid hunters in pursuit of mountain lions.

To summarize, we are asking the Commission to establish quotas in the future that are more in line with the best available science. Specifically, we request that the limit be reduced to 10% or less of the total adult and sub-adult

population. We are also asking that hounds are not permitted at any time to aid trophy hunters in their pursuit of mountain lions. The use of hounds is inhumane, does not constitute as fair chase and offers hunters an unfair advantage.

Thank you for your consideration. Please make this comment letter a part of the official record regarding this decision.

Respectfully,



Lynn Cullens

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- ⁱ Cougar Management Guidelines (2005)
- ⁱⁱ Batavia et al. (2018)
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- ^{iv} Creel and Rotella (2010), Ausband et al. (2015), Darimont et al. (2015)
- ^v Beausoleil et al. (2013)
- ^{vi} Robinson & DeSimone (2011)
- ^{vii} Maletzke et al. (2014)
- ^{viii} Stoner et al. (2006), Wielgus et al. (2013)
- ^{ix} Stoner et al. (2006)
- ^x Anderson and Lindzey (2005)
- ^{xi} Tiechman et al. (2016)
- ^{xii} Stoner et al. (2006)
- ^{xiii} Wallach et al. (2015)
- ^{xiv} Cooley et al. (2009)
- ^{xv} Tiechman et al. (2016)
- ^{xvi} Peeble et al. (2013)
- ^{xvii} Lindzey et al. (1992), Logan and Sweanor (2001), Elbroch et al. (2013)
- ^{xviii} Hristienko and McDonald (2007)
- ^{xix} Posewitz (1994), Teel et al. (2002), Cougar Management Guidelines (2005)
- ^{xx} Posewitz (1994)



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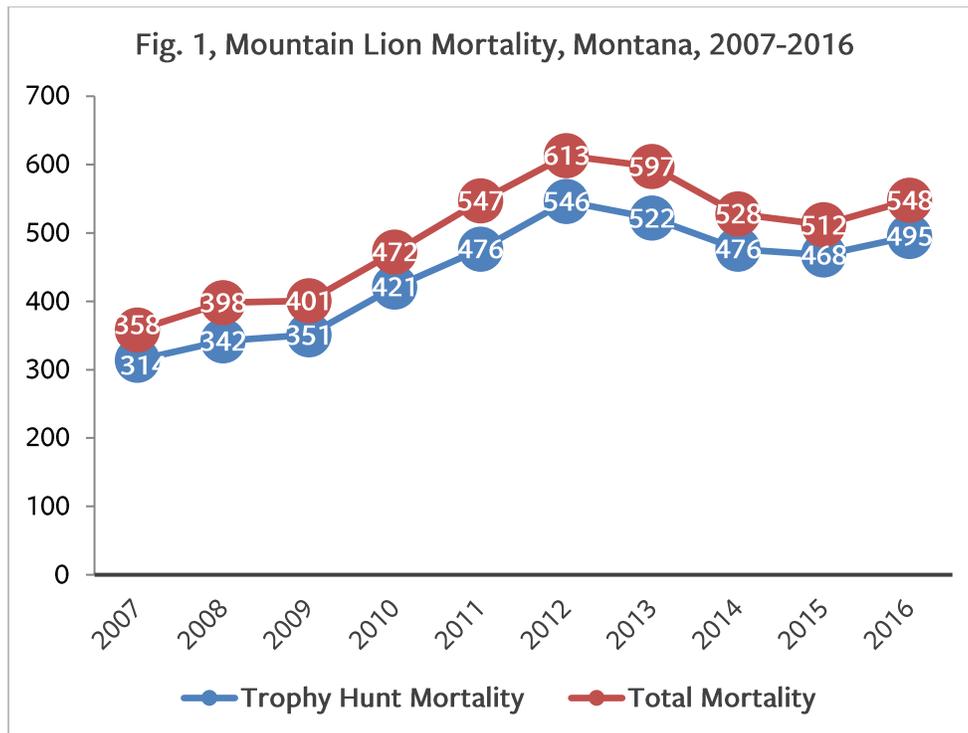
RE: Draft Montana Mountain Lion Monitoring & Management Strategy

Dear Mr. Vore,

On behalf of the Humane Society of the United States and our supporters in Montana, I thank you for this opportunity to submit comments on the Montana Fish, Wildlife & Parks (“FWP”) draft Montana Mountain Lion Monitoring & Management Strategy (“Strategy”). We support FWP’s efforts to establish a sound, science-based mountain lion (*Puma concolor*) management strategy that provides universal guidance to wildlife managers across Montana. However, we strongly recommend the Strategy not include trophy-huntingⁱ as a primary management technique. The practice is unnecessary for sound management and harmful to mountain lions, livestock and people as we explain herein.

If FWP is to continue allowing trophy hunting of mountain lions, the practice must be conducted in a moderate manner to be sustainable and avoid social disruption to lion communities, preventing human and livestock conflicts. Above all, the agency must set sustainable quotas based on reliable research and population estimates in order to prevent over-persecution. We recommend FWP establish within the Strategy a 12% cap on trophy hunting quotas based on adult mountain lion population estimates for each FWP region. A Montana mountain lion study concludes that sustainable offtake should be no more than 12%.ⁱⁱ Additionally, a ten-year study of hunting mountain lions on the Uncompahgre Plateau by Colorado Parks and Wildlife found that a sustainable offtake rate amounted to 11% to 12% of the population.ⁱⁱⁱ Washington Department of Fish and Wildlife biologists conclude a harvest of no more than 14% of the resident adults to avoid overkill of mountain lions.^{iv} Setting such a cap on trophy hunting quotas for each FWP region across the state will help ensure the long-term sustainability of mountain lions in Montana while providing flexibility for FWP managers to set quotas by individual Lion Management Unit (LMU) within each region.

Montana ranks as the second highest in the U.S. for its mountain-lion, trophy-hunting mortality.^v Between 2007 and 2016, trophy hunters killed more than 4,400 mountain lions in Montana (Fig. 1^v). Killing so many depletes their ability to recolonize their historic range in Montana and in states to the east.



For these reasons, FWP must not allow trophy hunting of mountain lions in our state and must not include the practice as a management technique in the Strategy:

I. Trophy hunting of mountain lions is unsustainable, cruel and harmful to family groups

Trophy hunting is the greatest source of mortality for mountain lions throughout the majority of their range across the western and midwestern United States.^{vii} The practice is harmful to more than just the wild cats who are killed. Conservation biologists have derided this practice as unnecessary and wasteful. Batavia et al. (2018) write: “Compelling evidence shows that the animals hunted as trophies have sophisticated levels of intelligence, emotion and sociality” which is “profoundly disrupted” by trophy hunting.^{viii}

1.) *Trophy hunting unsustainable numbers of lions exacerbates conflicts with them:* Large-bodied carnivores are sparsely populated across vast areas, invest in few offspring, provide extended parental care to their young, have a tendency towards infanticide, have females that limit reproduction, and maintain their resiliency through social stability.^{ix} Human persecution affects their social structure,^x and harms their persistence.^{xi}

Research shows that trophy hunting results in *additive mortality*—trophy hunters increase the total mortality to levels that far exceed what would occur in nature.^{xii} In fact, the effect of human persecution is “super additive,” meaning that hunter kill rates on large carnivores has a multiplier effect on the ultimate increase in total mortality over what would occur in nature due to breeder loss, social disruption and its indirect effects including increased infanticide and decreased recruitment of their young.^{xiii} When trophy hunters remove the stable adult mountain lions from a population, it encourages subadult males to immigrate, leading to greater aggression between cats and mortalities to adult females and subsequent infanticide.^{xiv}



Biologists Wolfe et al. (2015) recommend that states manage cougars at a metapopulation level rather than at the single population level. They further add: “We recommend a conservative management approach be adopted to preclude potential over-harvest in future years.”^{xxv} Instead, Montana’s mountain lions experience *additive* levels of mortality.^{xxvi} Extensive research shows that this additive mortality caused by high levels of hunting results in population sinks.^{xxvii} High hunting mortality does not result in decreased numbers and densities of cougars because of compensatory emigration and immigration responses, typically by dispersing subadult males.^{xxviii}

2.) *Trophy hunting harms entire mountain lion communities:* A recent study on mountain lions in the Teton region of Wyoming shows that these large cats are quite social animals and live in “communities,” with females sharing kills with other females, their kittens and even with the territorial males. In return for these meals, the adult males protect the females and their kittens from incoming, competing males.^{xxix} Disrupting these communities leads to deadly intraspecific strife, including infanticide on the kittens, and social chaos within the family groups.^{xxx} Trophy hunting destabilizes mountain lion populations, which may cause increased conflicts with humans, pets and livestock.^{xxxi}

3.) *Trophy hunting adult toms indirectly harms kittens and their mothers:* In heavily hunted populations, female mountain lions experience higher levels of intraspecific aggression (fights with other cats) resulting in predation on themselves and their kittens.^{xxxii} Trophy hunting can increase infanticide on kittens from incoming males,^{xxxiii} who kill mothers and or their dependent kittens. If the females are killed by a trophy hunter or a male lion, their kittens suffer orphaning and death.^{xxxiv} Over-hunting harms a population’s ability to recruit new members if too many adult females are removed.^{xxxv} A Utah study shows that trophy hunting adult females orphans their kittens, leaving them to die by dehydration, malnutrition, and/or exposure.^{xxxvi} Kittens are reliant upon their mothers beyond 12 months of age.^{xxxvii}

4.) *Trophy hunting is unnecessary, as mountain lions are a self-regulating species:* Mountain lions occur at low densities relative to their primary prey, making them sensitive to bottom-up (prey declines) and top-down (human persecution) influences.^{xxxviii} Their populations must stay at a smaller size relative to their prey’s biomass or risk starvation.^{xxxix} Mountain lions and other large carnivores are able to do this by regulating their own numbers, unlike ungulate species which will continue to grow.^{xxx} When prey populations decline, so do mountain lion populations.^{xxxxi} Mountain lion populations also require expansive habitat, with individual cats maintaining large home ranges that overlap with one another.^{xxxii}

5.) *Hounding is harmful to mountain lions (including kittens), hounds and non-target wildlife:* Using radio-collared trailing hounds to chase mountain lions and bay them into trees or rock ledges so a trophy hunter can shoot at close range is unsporting, unethical and inhumane.^{xxxiii} Hounds kill kittens, and mountain lions often injure or kill hounds.^{xxxiv} The practice is exceedingly stressful and energetically taxing to mountain lions.^{xxxv}

To escape from the hounds, mountain lions use evasive maneuvers such as running in figure eights, scrambling up trees or steep hillsides and using quick turns to evade the pursuing pack of barking hounds. As a result, mountain lions could exceed their aerobic budgets causing their muscles to go anaerobic (while hounds are capable of running a steady pace with little ill effect).^{xxxvi} For every one minute the hounds chased a mountain lion, it cost the cat approximately five times what it would have expended if the cat had been hunting. A 3.5-minute chase, according to Bryce et al. (2017), likely equaled 18 minutes of energy the mountain lion would have expended on hunting activities necessary to find prey.^{xxxvii}

Hounding is not considered “fair chase” hunting by most.^{xxxviii} Fair chase hunting is predicated upon giving the animal an equal opportunity to escape from the hunter.^{xxxix} The use of hounds provides an unfair advantage to trophy hunters who rely on hounds to do the bulk of the work in finding and baying a mountain lions. Hounds also chase and stress non-target wildlife, from porcupines to deer,^{xl} and trespass onto private lands.^{xli}



II. Studies show that trophy hunting mountain lions does not boost prey populations and is not a long-term management approach

Research shows that ungulates are ultimately limited more by their food resources and other habitat factors (“bottom-up” limitations), rather than by their predators (“top down” regulators).^{xlii} However, when herds lose their predators, they suffer poorer health and body condition, as well as more degraded habitats. With a healthy assemblage of native carnivores, ecosystems enjoy the benefits from top-down regulation, which increases the health of ungulate herds with which they are integrally coevolved.

The Strategy recommends wildlife managers consider mountain lion predation on prey populations in developing management prescriptions and suggests that, in certain circumstances, reducing mountain lion density through hunting could increase an ungulate population’s growth rate.^{xliii} However, the best available science demonstrates that killing native carnivores to increase ungulate populations is unlikely to produce positive results. Numerous recent studies demonstrate that predator removal actions “generally had no effect” in the long term on ungulate populations.^{xliiv} Because ecological systems are complex, heavily persecuting mountain lions will fail to address the underlying malnutrition problems that deer face. Research also shows that disruption by oil and gas drilling does, in fact, greatly harm mule deer populations.^{xliv} If Montana wants to grow its ungulate populations, then FWP must foster survival of adult female mule deer and elk to stem declines; and it must increase nutritional conditions for ungulates as these factors are the most important for mule deer survival.^{xlvi}

Persecuting mountain lions, such as in Region 3, will not help bighorn sheep recruitment, either. It is clear from the literature that bighorn sheep populations are in decline in the U.S. because of unregulated market hunting, trophy hunting, disease from domestic sheep,^{xlvii} resource competition by livestock, and loss of habitat.^{xlviii} Sawyer and Lindzey (2002) surveyed over 60 peer-reviewed articles concerning predator-prey relationships involving bighorn sheep and mountain lions, concluding that while predator control is often politically expedient, it often does not address underlying environmental issues including habitat loss, loss of migration corridors, and inadequate nutrition.^{xlix} The best available science suggests that persecuting mountain lion populations is not a solution for enhancing bighorn sheep numbers. That is because mountain lion predation upon bighorn sheep is a learned behavior conducted by a few individuals who may not repeat their behavior.^l Similar behavior has been documented on endangered mountain caribou in the Selkirk Mountains – as trophy hunting disrupted sensitive mountain lion communities, female lions took to higher altitudes to avoid incoming, infanticidal young males, and preyed upon mountain caribou.^{li}

Montana can better plan for bighorn sheep management by selecting relocation sites for bighorn sheep that have little stalking cover.^{lii} Escape terrain that contains cliffs, rocks, and foliage makes excellent ambush cover for a mountain lion and should be avoided.^{liii} Also, the amount of mountain lion predation is generally greater on small-sized bighorn sheep populations (those that are under 100 individuals) than on other larger bighorn sheep populations.^{liv} A host of authors reviewed by McKinney et al. (2006) and Ruth and Murphy (2010) recommend only limited mountain lion removals to benefit bighorn sheep populations.^{lv}

III. Most cattle and sheep losses in Montana come from a variety of maladies, but not predators, data show

The Strategy endorses trophy hunting of mountain lions to mitigate conflicts with human and livestock in multiple regions. Yet, conflicts with mountain lions are exceedingly rare, including with livestock. According to the U.S. Department of Agriculture (USDA), mountain lions were responsible for an estimated 384 or 0.4% of all calf and cattle losses in Montana in data year 2015.^{lvi} (Fig. 2). Mountain lions were responsible for an estimated 1%, or 277, of all sheep and lamb losses in Montana in data year 2014.^{lvii} The Strategy reports even lower numbers, with a combined total of 113 livestock for all species injured or killed in 2015 from mountain lions according to Table 3, Domestic livestock reported to and/or verified by USDA APHIS Wildlife Services as injured



or killed by mountain lions, federal fiscal years 2006 – 2015.^{lviii} Furthermore, mountain lion-human conflict is higher in areas with mountain lion trophy hunting.^{lix} Again, trophy hunting increases human conflicts as the practice disrupts the sensitive social structure that ensures stability in mountain lion populations (supra).^{lx} A recent review of predator-removal studies found that the practice is “typically an ineffective and costly approach to conflicts between humans and predators” and, as a long-term strategy, will result in failure.^{lxi} Instead, the authors concluded, non-lethal alternatives to predator removal, coupled with coexistence (husbandry techniques) may resolve conflicts.^{lxii}

Figure 2: Montana livestock losses from mountain lions, USDA data (Data years 2015 for cattle and 2014 for sheep)^{lxiii}		
Statewide inventory	Cattle & calf	Sheep & lamb
	3,995,000	361,000
Losses by cause		
Maladies (weather, illness, birthing complications, etc.)	80,730	17,380
All predators (bears, mountain lions, domestic dogs, etc.)	7,270	10,470
Mountain lions only	385	277
Total losses (maladies and predators combined)	88,000	27,850
Percentage of mortality from mountain lions	0.4%	0.99%

A Washington state study shows that, as mountain lion complaints increased, wildlife officials lengthened seasons and increased bag limits to respond to what they believed was a rapidly growing mountain lion population. However, the public’s perception of an increasing population and greater numbers of livestock depredations was actually a result of a declining female and increasing male population.^{lxiv} Heavy hunting of mountain lions skewed the ratio of young males in the population by causing compensatory immigration and emigration by young male lions, even though it resulted in no net change in the population.^{lxv}

Study authors found that the sport hunting of mountain lions to reduce complaints and livestock depredations had the opposite effect. Killing mountain lions disrupts their social structure and increases both complaints and livestock depredations.^{lxvi} Peebles et al. (2013) write:

... each additional cougar on the landscape increased the odds of a complaint of livestock depredation by about 5%. However, contrary to expectations, each additional cougar killed on the landscape increased the odds by about 50%, or an order of magnitude higher. By far, hunting of cougars had the greatest effects, but not as expected. Very heavy hunting (100% removal of resident adults in 1 year) increased the odds of complaints and depredations in year 2 by 150% to 340%.^{lxvii} Canadian researchers found the same outcome.^{lxviii}

Hunting disrupts mountain lions’ sex-age structure and tilts a population to one that is comprised of younger males, who are more likely to engage in livestock depredations than animals in stable, older population.^{lxix} Rather than allowing trophy hunting of mountain lions, FWP must work with livestock owners to ensure they are adequately and appropriately employing nonlethal predator deterrence techniques. Installing predator-proof enclosures, using livestock guardian animals, or utilizing frightening devices are all effective strategies to prevent conflicts with cougars and other carnivores. Other livestock husbandry practices are also essential at reducing conflicts with carnivores. Livestock operators should:



- Keep livestock, especially maternity pastures, away from areas where wild cats have access to ambush cover.^{lxx}
- Keep livestock, especially the most vulnerable—young animals, mothers during birthing seasons and hobby-farm animals—behind barriers such as electric fencing and/or in barns or pens or kennels with a top.^{lxxi} The type of enclosure needs to be specific for the predator to prevent climbing, digging or jumping.^{lxxii}
- Move calves from pastures with chronic predation problems and replace them with older, less vulnerable animals.^{lxxiii}
- Concentrate calving season (i.e., via artificial insemination) to synchronize births with wild ungulate birth periods.^{lxxiv}
- In large landscapes, use human herders, range riders and/or guard animals.^{lxxv} Guard dogs work better when sheep and lambs are contained in a fenced enclosure rather than on open range lands where they can wander unrestrained.^{lxxvi}
- Suspended clothing; LED flashing lights (sold as “Foxlights”); radio alarm boxes set off to make alarm sounds/noises near pastures are some of the low-cost sound and or visual equipment that deters wild cats.^{lxxvii}

According to USDA data from 2015, only an estimated 14.5% of cattle and calf operations in Montana used any nonlethal predator control methods.^{lxxviii} Expanding the use of suitable techniques that are landscape and animal specific is essential to reducing conflicts and preventing the death of livestock as well as wild carnivores.

IV. Killing mountain lions halts their ability to create trophic cascades in their ecosystems, harming a wide range of flora and fauna and disrupting their ecosystem services

Montana’s mountain lions must be conserved so that other wildlife and wild spaces may continue to receive critical ecosystem benefits. Mountain lions serve important ecological roles, including providing a variety of ecosystem services.^{lxxix} Maehr et al. (2001) assert the importance of these cats on the landscape:

One aspect of cougar ecology that is becoming less debatable is its role in biotic communities *P. concolor* has the potential to structure the distribution and demography of prey (Logan and Sweaner 2001, Maehr et al. 2001). Browse lines, highway collisions, Lyme disease (Wilson and Childs 1997), loss of biodiversity (Alverson et al. 1988, Waller and Alverson 1997), and other problems associated with overabundant white-tailed deer (*Odocoileus virginianus*) hint at the benefits of returning such a predator . . .^{lxxx}

As such, conserving these large cats on the landscape creates a socio-ecological benefit that far offsets any societal costs.^{lxxxi} Their protection and conservation has ripple effects throughout their natural communities. In Zion National Park, researchers found that by modulating deer populations, mountain lions prevented overgrazing near fragile riparian systems. The result was more cottonwoods, rushes, cattails, wildflowers, amphibians, lizards and butterflies, as well as deeper, but narrower stream channels.^{lxxxii} Multiple recent studies have found that mountain lions leave more carrion—even more than wolves—which is significantly beneficial to ecosystems and further enhances biodiversity.^{lxxxiii}

Biologists consider mountain lions an “umbrella” species—by protecting these cats and their large habitat, a wide array of additional plants and animals in this habitat will also be protected.^{lxxxiv} Mountain lions, as with most large carnivores, are also considered a keystone species because they help drive the ecosystems in which they live.^{lxxxv} As a large predator, mountain lions regulate many of the other species in their communities, including



herbivores, who then regulate the plant community.^{lxxxvi} Importantly, mountain lions limit competition by killing smaller carnivores, such as coyotes, which increases biological diversity.

Mountain lions reduce deadly deer-vehicle collisions^{lxxxvii} and help maintain the health and viability of ungulate populations by preying on sick individuals, reducing the spread of disease such as chronic wasting disease (CWD).^{lxxxviii} This ecosystem benefit is increasingly important as CWD infection continues to infiltrate ungulate herds in Montana and neighboring states.^{lxxxix}

Hunters likely cannot substitute for mountain lions as providers of ecological services such as stopping the spread of disease.^{xc} During a three-year study on Colorado’s Front Range, researchers found that mountain lions preyed on mule deer infected with CWD.^{xcⁱ} The study concluded that adult mule deer preyed upon by mountain lions were more likely to have CWD than deer shot by hunters. According to the study, “The subtle behaviour changes in prion-infected deer may be better signals of vulnerability than body condition, and these cues may occur well before body condition noticeably declines.”^{xcⁱⁱ} This suggests that mountain lions select for infected prey and may be more effective at culling animals with CWD than hunters who rely on more obvious signs of emaciation that occur in later stages of the disease. Moreover, the lions consumed over 85 percent of carcasses, including brains, removing a significant amount of contamination from the environment.^{xcⁱⁱⁱ}

V. Trophy hunting of mountain lions is not economically sound or supported by the majority of Americans who want to see wildlife protected

Trophy hunting of mountain lions is not in the best interest of these iconic species, nor does it represent the interests of the public majority. The practice deprives citizens of their ability to view or photograph wild mountain lions. Nonconsumptive users are a rapidly growing stakeholder group who provide immense economic contributions to the communities in which they visit.^{xc^{iv}} The U.S. Fish and Wildlife Service’s 2016 wildlife-recreation report indicates that wildlife watchers nationwide have increased 20% from 2011, numbering 86 million and spending \$75.9 billion, while all hunters declined by 16%, with the biggest decline in big game hunter numbers, from 11.6 million in 2011 to 9.2 million in 2016.^{xc^v} Altogether, hunters spent \$25.6 billion in 2016, about one-third that spent by wildlife watchers (Fig. 2).^{xc^{vi}}

Figure 3: Wildlife recreation participation & expenditures, 2011 vs. 2016 data			
Numbers	2011	2016	Change
Wildlife watchers	71.8M	86.0M	+14.2M (+20%)
All hunters	13.7M	11.5M	-2.2M (-16%)
Big game	11.6M	9.2M	-2.4M (-20%)
Small game	4.5M	3.5M	-1M (-22%)
Migratory birds	2.6M	2.4M	-0.2M (-8%)
Other animals	2.2M	1.3M	-0.9M (-41%)
Expenditures	2011	2016	Change
Wildlife watchers	\$59.1B	\$75.9B	+\$16.8B (+28%)
All hunters	\$36.3B	\$25.6B	-\$10.7B (-29%)

The public values mountain lions and views them as an indicator of healthy environments while posing little risk to people living near them.^{xc^{vii}} A new study indicates that Americans highly value wildlife, including top carnivores such as mountain lions, and are concerned about their welfare and conservation.^{xc^{viii}} Surveys also show that the majority of Americans do not support trophy hunting.^{xc^{ix}} An additional study showed that most believe mountain lions are the best representative of the Southern Rockies heritage and landscape.^c Authorizing a trophy hunting



**THE HUMANE SOCIETY
OF THE UNITED STATES**

season is not in the best interest of Montanans who prefer that these large cats remain on the landscape, without threat of persecution.

VI. Conclusion

As detailed above, trophy hunting of mountain lions, especially at unsustainable and excessive rates, can harm the long-term survival of the species and increase conflicts with humans, pets and livestock. Moreover, high rates of killing can be damaging to ecosystems and to other wildlife, including Montana's ungulate populations which benefit from mountain lion predation on individuals infected with chronic wasting disease.

For reasons stated above, the Humane Society of the United States recommends the Strategy not include trophy hunting of mountain lions as a management strategy. Montana's mountain lions are an important component of our natural wild heritage and deserve reasoned management so that their populations are conserved for future generations.^{ci} If trophy hunting of mountain lions is to continue in Montana, FWP must include within the Strategy a cap on trophy hunting quotas to not exceed 12% of the adult mountain lion population for each FWP region. Thank you for your consideration.

Sincerely,

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The Humane Society of the United States
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ⁱThe Humane Society of the United States defines trophy hunting as the practice of killing—or pursuing with the intent to kill—wild animals to display their body parts, not primarily for food or subsistence (The Humane Society of the United States 2017).

ⁱⁱ H. S. Robinson et al., "A Test of the Compensatory Mortality Hypothesis in Mountain Lions: A Management Experiment in West-Central Montana," *Journal of Wildlife Management* 78, no. 5 (2014).

ⁱⁱⁱ K.A. Logan, "Puma Population Responses to Sport Hunting on the Uncompahgre Plateau, Colorado," ed. Colorado Parks and Wildlife (Unpublished letter of 12/10/142014).

^{iv} R. A. Beausoleil et al., "Research to Regulation: Cougar Social Behavior as a Guide for Management," *Wildlife Society Bulletin* 37, no. 3 (2013).

^v The Humane Society of the United States, "State of the Mountain Lion: A Call to End Trophy Hunting of America's Lion," (Washington, DC2017).

^{vi} Data received from FWP through a public records request submitted by the Humane Society of the United States in 2018.

^{vii} See e.g., The Humane Society of the United States, "State of the Mountain Lion: A Call to End Trophy Hunting of America's Lion.,"; Cougar Management Guidelines, *Cougar Management Guidelines* (Bainbridge Island, WA: WildFutures, 2005).

^{viii} Batavia et al. (2018) write: "...nonhuman animals are not only physically, socially, and emotionally disrupted [by trophy hunters], but also debased by the act of trophy hunting. Commoditized, killed, and dismembered, these individuals are relegated to the sphere of mere things when they are turned into souvenirs, oddities, and collectibles. We argue this is morally indefensible. Nonhuman animals are not mere objects but living beings with interests of their own, to whom we owe at least some basic modicum of respect (Regan, 1983). To transform them into trophies of human conquest is a violation of duty and common decency; and to accept, affirm, and even institutionalize trophy hunting, as the international conservation community seems to have done, is to aid and abet an immoral practice." Authors then argue that trophy hunting cannot be "presumed [to be] integral to conservation success."

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^x Stoner, Wolfe, and Choate, "Cougar Exploitation Levels in Utah: Implications for Demographic Structure, Population Recovery, and Metapopulation Dynamics.,"; Kaylie A. Peebles et al., "Effects of Remedial Sport Hunting on Cougar Complaints and Livestock



Depredations," *Plos One* 8, no. 11 (2013); Wallach et al., "What Is an Apex Predator?"; Heather M. Bryan et al., "Heavily Hunted Wolves Have Higher Stress and Reproductive Steroids Than Wolves with Lower Hunting Pressure," *Functional Ecology* (2014); C. T. Darimont et al., "Human Predators Outpace Other Agents of Trait Change in the Wild," *Proceedings of the National Academy of Sciences of the United States of America* 106, no. 3 (2009); Sterling D. Miller et al., "Trends in Intensive Management of Alaska's Grizzly Bears, 1980-2010," *Journal of Wildlife Management* 75, no. 6 (2011).

^{xi} Chris T. Darimont et al., "The Unique Ecology of Human Predators," *Science* 349, no. 6250 (2015).

^{xii} J. A. Vucetich, D. W. Smith, and D. R. Stahler, "Influence of Harvest, Climate and Wolf Predation on Yellowstone Elk, 1961-2004," *Oikos* 111, no. 2 (2005); G. J. Wright et al., "Selection of Northern Yellowstone Elk by Gray Wolves and Hunters," *Journal of Wildlife Management* 70, no. 4 (2006); L. L. Eberhardt et al., "A Seventy-Year History of Trends in Yellowstone's Northern Elk Herd," *ibid.* 71, no. 2 (2007); Darimont et al., "The Unique Ecology of Human Predators."

^{xiii} Scott Creel and Jay Rotella, "Meta-Analysis of Relationships between Human Offtake, Total Mortality and Population Dynamics of Gray Wolves (*Canis Lupus*)," *PLoS ONE* 5, no. 9 (2010); D. E. Ausband et al., "Recruitment in a Social Carnivore before and after Harvest," *Animal Conservation* 18, no. 5 (2015); Darimont et al., "The Unique Ecology of Human Predators."

^{xiv} H. S. Robinson and R. Desimone, "The Garnet Range Mountain Lion Study: Characteristics of a Hunted Population in West-Central Montana: Final Report," *Montana Fish, Wildlife & Parks* (2011); Robinson et al., "A Test of the Compensatory Mortality Hypothesis in Mountain Lions: A Management Experiment in West-Central Montana."; H. S. Cooley et al., "Does Hunting Regulate Cougar Populations? A Test of the Compensatory Mortality Hypothesis," *Ecology* 90, no. 10 (2009); Wielgus et al., "Effects of Male Trophy Hunting on Female Carnivore Population Growth and Persistence."; C. M. S. Lambert et al., "Cougar Population Dynamics and Viability in the Pacific Northwest," *Journal of Wildlife Management* 70 (2006); Kristine J. Teichman, Bogdan Cristescu, and Chris T. Darimont, "Hunting as a Management Tool? Cougar-Human Conflict Is Positively Related to Trophy Hunting," *BMC Ecology* 16, no. 1 (2016).

^{xv} M. L. Wolfe et al., "Is Anthropogenic Cougar Mortality Compensated by Changes in Natural Mortality in Utah? Insight from Long-Term Studies," *Biological Conservation* 182 (2015), p. 195

^{xvi} *Ibid.*; Robinson and Desimone, "The Garnet Range Mountain Lion Study: Characteristics of a Hunted Population in West-Central Montana: Final Report."; Robinson et al., "A Test of the Compensatory Mortality Hypothesis in Mountain Lions: A Management Experiment in West-Central Montana."; H. S. Robinson et al., "Sink Populations in Carnivore Management: Cougar Demography and Immigration in a Hunted Population," *Ecological Applications* 18, no. 4 (2008).

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Noxon Rod & Gun Club

BOX 1491
NOXON, MONTANA 59853



December 4, 2018

Gentleman:

We recently received a letter proposing a revised strategy for sampling mountain lion populations within the state. We appreciate receiving the information.

Our only comment at this time is the concern that dividing the state into only 4 ecoregions for lions seems to be overly broad. As your data base expands we suggest you consider further refinement of the ecoregions to be more locally specific.

As you progress with development of your strategy please keep us informed with your proposed population objectives and harvest recommendations.

Again, thank you for the opportunity to be informed and comment.

Sincerely,

A handwritten signature in black ink that reads "Ryan Weltz". The signature is written in a cursive style.

Ryan Weltz

Pres., Noxon Rod and Gun Club

RECEIVED

DEC 10 2018

FISH, WILDLIFE & PARKS
WILDLIFE DIVISION

Bryce Connery
2263 Ferguson Ave
Bozeman, MT 59718

January 3, 2019

Montana Fish, Wildlife & Parks:
Public Comment: Mountain Lion Management Strategy

To the Mountain Lion Management Team:

Please see the **two** attached graphs that I will refer to in my comments. I have read the management plan and to a certain degree believe in managing mountain lions on a larger landscape or eco region given their large territories. What the management plan fails to address is the wolf reintroduction and their rapid population increase since the late 90s and the failure to adjust the mountain lion quotas for this added competition and predation.

I live in Bozeman and have spent a considerable amount of time hunting big game and pursuing mountain lions with hounds in district 301, 310, 311, 360 & 362. My comments will also apply to other heavily wolf populated districts of 200 and 100. Looking at the two graphs I created which are also reinforced on page 11 of the state wide harvest history, it is evident that we reached peak lion harvest in the late 1990s followed by a necessary correction around 2006 by FWP to lower quotas and then a rise in quotas again in 2012. Since the increase in quotas again in 2012, the data unquestionably proves that the lion population never recovered to justify the current historically high quotas. In District 301, the lion quota is now 100% higher than what it was from the correction FWP made in 2006. Not only is the quota now 33% higher than its previous historic high of the late 1990s, but the harvest numbers have never justified an increase. In fact, the quota has only been reached twice since 2009!

Looking at the two graphs I have attached, it is clear that in these regions there has never been a scientific justification to increase quotas from their correction levels in the late 2000s. Last year Montana experienced a nearly record winter providing houndsman with perfect tracking conditions and concentrated wintering game populations for the entire lion season. Even with these perfect hunting conditions only two lions were harvested. ***This is the lowest lion harvest ever recorded since FWP started keeping records in 1995.*** District 310,311,362&362 also experienced the third lowest harvest on record. Despite these record low harvest numbers, there was still no correction from FWP for the 2018 season.

Since the crash of the lion population in the early 2000s and the necessary correction from FWP to lower quotas, the lion is no longer the top predator on the landscape. It has been proven in multiple studies, most thoroughly from the 16-year lion study lead by Dr. Mark Elbroch in Jackson Wyoming, that wolves are devastating to the lion population. He found that wolves alone are responsible for 20% of juvenile lion mortality. **Simultaneously and possibly even more devastating to mountain lions, wolves have displaced elk into lower elevation open country where the elk feel safer. Mountain lions are unable to compete with wolves and hide their kills effectively in this open landscape away from the protection of trees and cliffs and thus have a substantially smaller prey base.**

The following questions remain:

1. How can we justify record quotas when according to the data our lion population is still at the record low levels of the late 2000s?
2. What constitutes a 100% increase in a lion quota without reciprocal harvest AND with a growing wolf population?

However you decide to manage the scale of the lion units it is clear we have a wolf problem in SW Montana, not a lion problem. The data proves an over-harvest of lions in units 301 and 310,311,360,362. Let's be cautious and significantly reduce quotas in these areas – particularly females. **If you decide to manage them on the eco region scale, please substantially reduce overall quotas for these areas until you can identify where the lion harvest is coming from.** Unfortunately, I suspect with the eco region management is that there will be an over-harvest of lions in the easier to access areas and ultimately a further reduction in the age of lions harvested. Areas such as Bozeman where there is an increasing number of hunters/houndsman, lions will continue to be over-harvested.

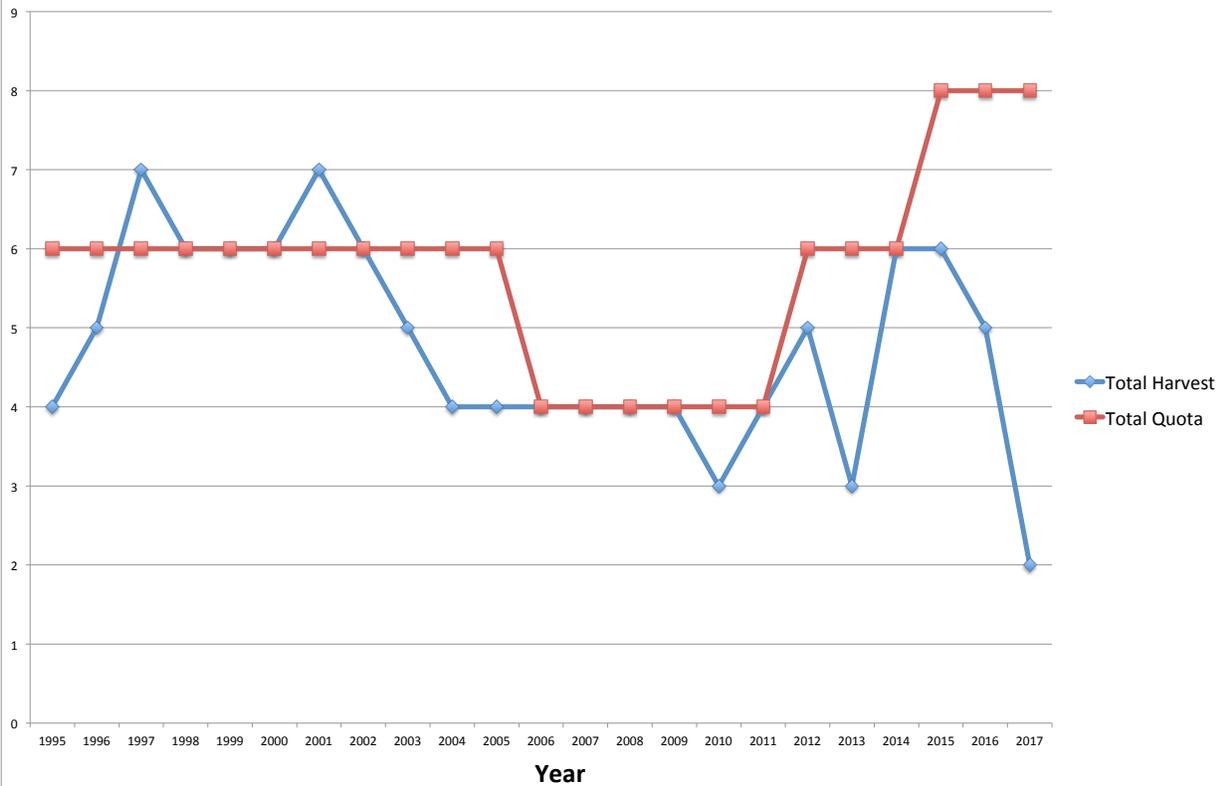
Thank you for your consideration. If you have any questions my contact info is below:

Bryce Connery

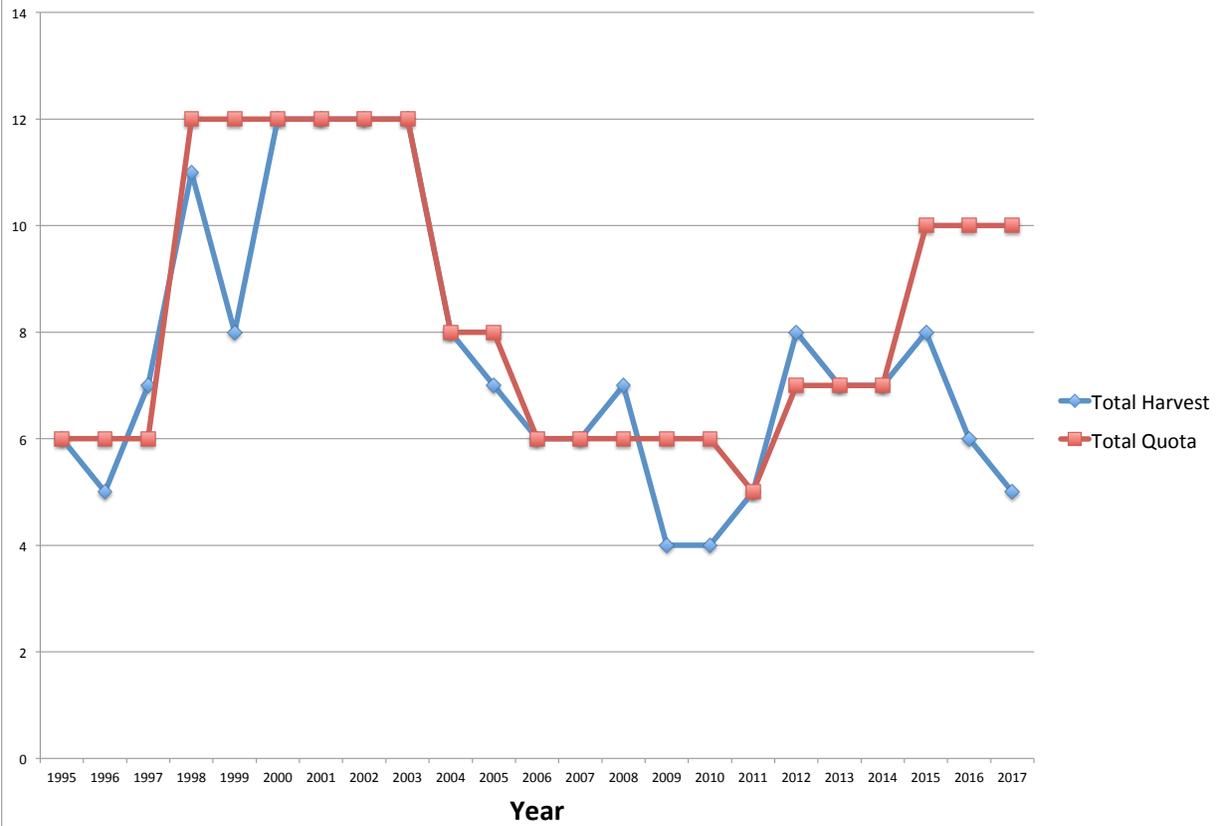
406-599-9158

Bryce.connery@gmail.com

District 301 Mountain Lion Historical Quota and Harvest



District 310, 311, 360, 361 & 362 Mountain Lion Historical Harvest and Quota





P.O. BOX 7792 MISSOULA, MT 59807 (406) 241-3121
www.hellgatehuntersandanglers.org

FWP Wildlife Division
PO Box 200701
Helena, MT 59620-0701

RE: Montana Mountain Lion Monitoring and Management Strategy

Montana Fish Wildlife and Parks,

Thank you for the opportunity to comment on the *Montana Mountain Lion Monitoring and Management Strategy*. We appreciate the State creating a well-written plan using the best available science to apply statistical and field monitoring techniques to lion management.

We recommend adding to the Strategy the need for Montana Fish, Wildlife and Parks (MFWP) to coordinate with Idaho Fish and Game on lion management actions that could affect each state. Cross-boundary discussions would add to the knowledge base of MFWP biologists to help them make more informed management decisions.

Also, since the agency will, "maintain a balance between mountain lion populations, their prey, and humans by directing local harvest of mountain lions, if and as needed, to manage prey survival..," MFWP should make it a priority to update its 2004 Elk Management Plan to ensure the ecological and social values are accurately represented.

Once the Strategy is adopted, HHA would like to be part of future discussions to determine lion management objectives. Please keep us informed of public participation opportunities.

Sincerely,

A handwritten signature in black ink, appearing to read "Adam Shaw", with a long horizontal flourish extending to the right.

Adam Shaw,

President
Hellgate Hunters and Anglers

To ~~the~~ ^{mountain lion} recovery,

1-6-18

One of the highlights of my life was seeing a mountain lion. It was in 1981 near Augusta. I love living in Mt. where another sighting is possible. Please do all you can to protect this valuable predator from human predation.

I hope all future generations will have a chance to see mountain lions in the wild. Sincerely, Ann Wilsnack

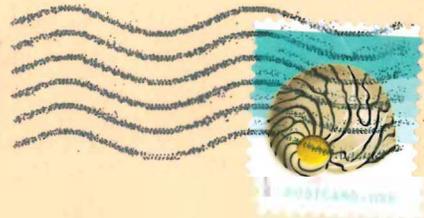
Ann Wilsnack

715 Highland

Helena, MT. 59601-9327

GREAT FALLS MT 594

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JAN 10 2019

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FWP Wildlife Division

P.O. Box 200701

Helena, MT. 59620-0701



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Weimer
Po Box 571
Bonner Mt 59823

MISSOULA MT 598

15 JAN 2019 PM 11



MT FWP
WILDLIFE DIVISION
ATTN: MTN LION MGMT COMMENTS
PO BOX 200701
HELENA, MT 59620-0701

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Montana Mountain Lion Monitoring & Management Strategy

FWP PUBLIC COMMENT FORM *

Name** Barbara, Billy Joe, Willie, Wyatt, Tommy Joe, Jossie, Alec, Joey, Bill, Bobbie Weimer

Mailing Address (Street or PO Box)** 571

Town, State ZIP** Bonner, Mt. 59823

or Email address** joanne75@g.com

Affiliation--if you are officially commenting for a group or business:

OR you can leave your comments online* at <http://fwp.mt.gov/> :

See MOUNTAIN LION MANAGEMENT under What's Trending

Please submit your comments, arguments, and/or endorsements in the following space. Attach additional information to this form if you wish. Thank you for your interest in this proposal.

Comment attached -
your website stated comment period ended Friday - Jan 15. But after looking at the calendar Jan 15 is Tues! yes your comment page below only says the date but the study was online and that's the info I was using. I became acutely aware that I was out of time the pm. I am not a fast typist. I was typing when I ran out of time. I don't know then if only part of the comment was received or none of it because of not done by 5pm. So I have mailed this - and I hope you will read it at least!

*FWP must receive your comments **no later than 5:00 pm on January 15, 2019**

**Leaving this information will allow FWP to update you on this proposal.

Much of my family and friends are actively involved in lion hunting. Most have their own dogs. Your report is obviously thorough and extensive. Your study is so long and all the abbreviations make it very hard to wade thru. Statements are made to be followed by a contradiction that the statement isn't always true because of variables. Then many of these variables are not shown to be included in your formula. One of the problems we see with your study is your process. The mathematical formula, you have developed, is to manage Mountain Lion Populations that will conserve their population for the future. This is what we take as the FWP's goal. Your formula and study describes the reproduction rates as constant. The mortality rates for harvest can be controlled but the survival and overall mortality numbers are more of a good "guesstament." The formula is flexible so results can be adjusted. This is our problem. This process is backwards. You establish the goal then manipulate the numbers to achieve it. You tote the Grizzly Bear as a success, but this was how they were managed in the beginning too. Older hunters remember when hunters could hunt them. Then population numbers were established to protect them and 25 were determined could be killed each year. Hunters were promised they'd participate. Very quickly 25 bears were killed by cars, trains, etc and especially the FWP themselves because of conflicts! The hunter was shut-out. Their money being taken to pay for the management but not being able to harvest one. The wolf program is along the same process. Numbers were established, but very quickly ignored after "the public- the NON-HUNTING public, was able to take over the meetings and the whole established program was not what was originally described. Many more wolves exist and their population numbers have a much greater affect on deer, elk and lion populations than is acknowledged! The number of elk and deer populations greatly effect the population rate of lions. As the deer and elk move away from the threat of wolves, human conflicts increase. These conflicts you say will be addressed through the flexibility of the formula to establish harvest numbers that will solve them. The reality of conflict harvests are almost always solved thru the FWP and/or paid houndsman. The hunter is shut-out. Your lion population goals are vague and non-defined by the formula. Is the formula going to be used to say-this is how many are there now? Or will it be manipulated to determine what you feel should be there. You actually have described two opposite goals within your study that are evident in harvest numbers now. The first is the number of younger lions harvested and secondly a wish to increase the age of harvested lions to older ones, older than 5 yrs. Young lions are usually the "conflict" lions. Are there more conflicts because of larger kitten survival numbers, or less game, or game migration to lower elevations? Older lions are usually hunted by "trophy" hunters. Lion hunters currently are a mixture of these two goals. Your formula does not even address this.

Lion hunting is a unique sport that involves a lot more than just a hunter harvesting a lion. It involves the bond of the hound to the hunter and the thrill of the chase. A successful hunter requires very trained hounds. This training is very time consuming and expensive. A "good ol' hound" requires years of work and dedication. A plan that does not keep that fact at the forefront, will quickly destroy

lion hunting. Chase season develops a hounds skill level but does not sustain the needed desire of a harvest season. Even an experienced hound will lose interest without the harvest. Your formula does not address what is considered a "healthy" population. (Healthy for the lion, for the game, for the human?) Your formula is so flexible, it allows you to do just about anything you want. The greatest fear of your goal is- in the long run, will the hunter be left out of the process again ?