

**Petitioners' Analysis of Changes to Cougar Hunting Rule
Considered by Wildlife Committee on February 12, 2024**

March 10, 2024

Our [October 25, 2023 petition](#) is lengthy and includes hundreds of citations to agency documents and scientific papers, and our proposed rules vary from the recommendations made by the Commission's Wildlife Committee on February 12, 2024. As a result, Petitioners Washington Wildlife First, the Mountain Lion Foundation, and Co-Existing with Cougars in Klickitat County prepared this summary of the proposed changes discussed by the Wildlife Committee and the reasons why these changes should be made in advance of the 2024-2025 hunting season.

Potential Changes Discussed by the Wildlife Committee

- 1. Change #1. Insert a sunset date to ensure the Commission reviews the cougar hunting every three years, with an opportunity for public input.** The Wildlife Committee recommended this change.

Until 2020, the Commission examined the cougar hunting rule every three years as part of the three-year season-setting process. But the 2020 changes quietly removed the dates from the rule so that it would never expire, which is why the cougar hunting rule did not come up for automatic consideration this year—making a rulemaking petition necessary to bring these issues before the Commission. Cougars and bears are the only species with hunting seasons that are not reviewed during the three-year season-setting process, in violation of the [2015-2021 Game Management Plan](#), which provides that WDFW will “evaluate the cougar harvest structure and harvest guidelines every three years, corresponding to the three-year hunting season package” (p. 111).

Department management indicates that it reviews all the hunting rules each year, regardless of the dates in the title. That may be so, but there is no opportunity for the Commission to weigh in or hear from the public when this reconsideration is done internally rather than through rulemaking. This means members of the public who believe a change is necessary must raise the issue through rulemaking petitions rather than submitting comments during the normal course of rulemaking. Department management indicates it may make additional changes to this rule next year. Inserting dates into the rule would not prevent this but would follow the guidance of the Game Management Plan by guaranteeing a formal review of the cougar hunting rule at least every three years.

- 2. Change #2.** The second change recommended by the wildlife committee has two components, which are better addressed separately.

- a. Revert to science-based cougar density estimates in place before 2020.**

The use of science-based cougar density estimates is key to the management approach described in the Game Management Plan. WDFW spent millions of taxpayer dollars and devoted 16 years of field research to developing the science substantiating this framework. This groundbreaking research was the subject of multiple peer-reviewed studies, including a [paper published in 2013](#) by a team that included three current Department scientists, and [one published in 2021](#) by five current Department scientists.

As the [petition](#) explains in detail on pp. 10-18, the 2020 rule replaced these science-based density estimates with artificial densities in 19 PMUs. It inflated the densities in these units by making the

“assumption” that there must be a higher cougar population in these PMUs because hunters in them had regularly exceeded the hunting guidelines. But Game Division Manager Anis Aoude was clear when he proposed the rule change that there was no scientific basis for this assumption, saying in March 2020 that: “We’re not saying density is higher in those areas, but the assumption is that it is based on past harvest and based on some of the other conflict and other things we hear from the public.” Carnivore scientist Brian Kertson confirmed during the December 7, 2023 carnivore workshop that this change was “strictly a policy call,” in which the scientists were not involved. During the February 12, 2024 wildlife committee meeting, Assistant Wildlife Program Director Eric Gardner explained how the artificial densities were set:

When we did put the table together, we were very clear to indicate that we were not presenting that we had science that would reflect that the density that the resulting calculation would imply was a density that we could support or had data to indicate was real on the ground. What we did was indicate that our current structure [in 2019] allows for harvest that occurs through the end of the year before we would consider shutting a unit down, and the history of the harvest in those units had occurred at a rate that exceeded the guidelines beyond the December...when we look at the end of December we had frequently exceeded the guidelines in those units. So we assessed what it would mean to change and just kind of move the needle on where that guideline would now sit, would it sit back where it had historically sat or would it move up to match where we are at the end of the year.

—[February 12, 2024 Wildlife Committee Meeting](#), beginning at about 0:55:30

The artificially inflated cougar densities included in the 2020 rule change corrupt the science generated by years of exceptional work by Department biologists and frustrate the purpose of the framework they constructed. They also obscure the real impact on the cougar population, by making hunting rates in these 19 PMUs seem as if they are close to the natural growth rate—when, in reality, hunters in these PMUs have significantly exceeded these levels for several years running. The Commission should restore scientific integrity to the cougar hunting rule by restoring scientifically determined densities—and if it decides to allow hunting to continue to exceed the population growth rate in these PMUs, it should be honest and transparent about this decision and its likely consequences.

b. Revert to the pre-2020 practice of including subadult cougars (18-24 months old) in densities and hunting guidelines.

The second component of Change #2 recommended by the committee would reverse the arbitrary decision made in 2020 to remove subadult cougars from density estimates and hunting guidelines.

Prior to 2020, WDFW counted all “independent-aged” cougars toward the hunting guidelines, including subadults (aged 18-24 months old) and adults. This was in accordance with the [2015-2021 Game Management Plan](#), which sought to “provide recreational harvest opportunity at a 12-16% annual harvest rate of **the cougar population, excluding kittens** in each PMU.” (Objective 93, p. 111, emphasis added).

However, the 2020 rule change excluded hunter take of subadults from the harvest guidelines. Although management has since offered different post hoc rationalizations, the *sole* reason given for this change at the time was to allow hunters the opportunity to kill more cougars each year. Because hunters kill a disproportionate number of cougars between 18 and 24 months, managers estimated that excluding subadult cougars from density estimates and hunter guidelines would allow hunters to kill up to 62 additional cougars each year statewide—while still allowing WDFW to claim that the guidelines were set at 12-16% of the population’s intrinsic growth rate. This change permits hunters to kill an unlimited number of subadult cougars in each PMU, until the number of adult cougars killed hits 16% of the adult cougar population.

This change violates Objective 93 of the 2015-2021 Game Management Plan and ignores the scientific consensus regarding the importance of counting subadult cougars. It also contradicts what Department scientists wrote in a [published 2013 analysis](#): “because subadult age classes are dynamic and difficult to estimate, and difficult to identify in the field, **we recommend that harvest of this age class be counted against the allocated harvest so that recruitment is not affected** in the future.”

Cougar scientists agree that subadults should count toward hunting limits because these cougars are the primary dispersers and represent an important component of the population, and because overhunting them can disrupt cougar territorial and social structure and decrease genetic diversity. During his December 2023 testimony to the Commission, preeminent cougar researcher Dr. Mark Elbroch emphasized this point:

Dispersers are critical to ensuring long-term resilience of cougar populations across Washington, and therefore any harvest plan must include dispersers and mitigate negative impacts to dispersal patterns. **Unlimited take on subadults, for example, absolutely violates a science-based approach to protecting cougar populations for future generations.** It also increases the chances of fragmenting Washington's cougar population.

—[December 15, 2023 Commission meeting](#), beginning at 2:00:30 (*emphasis added*)

- 3. Change #3: Cap the number of cougars hunters can kill each year, to keep it *below* the estimated population growth rate.**¹ Although the Wildlife Committee did not recommend this change, we urge the full Commission to give it additional thought.

The current rule sets hunting guidelines that purport to represent 12-16% of the cougar population in each PMU (although the 2020 changes distorted these numbers, as described above). These guidelines were intended to provide managers with discretion to shut down cougar hunting after hunters had killed 12% of the population, **but WDFW has *never* closed a PMU to hunting until hunters have**

¹ Under consideration of Change #3, the Wildlife Committee also declined to recommend that the rule include the densities and growth rates upon which the hunting rates are based. Although such a measure would not change the substantive effect, it would go a long way toward repairing the Department’s credibility by providing transparency about how it is making these calculations.

killed 16% of the population. In fact, hunters regularly exceed that level in many PMUs, while total known cougar mortality levels sometimes climb to *more than half* of the estimated population.

Several peer-reviewed studies support the conclusion that the intrinsic growth rate for the cougar population is 14% a year, with a margin of error of +/- 2%. If science justifies shifting that number, then management can always adjust the guidelines. However, numerous Department studies, as well as Objective 93 of the Game Management Plan, emphasize the importance of keeping cougar mortality in each PMU below this intrinsic growth rate, to minimize the likelihood that hunting will disrupt cougar social structure and harm the larger population. For that reason, the growth rate should serve as a firm cap on total known human-caused mortality, not just a “guideline.” This would be in line with the guidance from the [Game Management Plan](#), which emphasizes repeatedly that the 12-16% range should represent a “**maximum** harvest rate.” (p. 110, also at pp. 109, 111) (emphasis added).

At the very least, that cap should be set at 16% of the population in each unit, but there is a strong argument that it should be set much lower. The 16% level represents the estimated growth rate at the *outside edge of the margin of error*, which is not a standard that should guide management decisions. Even if the rule were adjusted to include total known mortality, it would still fail to account for *unreported* poaching, wounding loss, and tribal hunting numbers, which will likely add significantly to overall mortality in some areas. As a result, setting a limit at 16% of the estimated population would mean that all human-caused mortality would frequently continue to exceed the population growth rate. A more reasonable limitation would be to cap overall known mortality at 12% of the estimated local population (the lower level of the margin of error), which would also provide some leeway for unreported mortality.

Department research confirms this approach. In 2021, five current WDFW biologists (and one former WDFW scientist) published [a peer-reviewed risk analysis model](#) that identifies the optimum level of cougar hunting to minimize overall risks—in other words, the level that minimizes the risk of damaging the cougar population through overhunting *and* the risk of unnecessarily limiting hunter opportunity. According to this model, the optimal hunting rate that minimized these *combined* risks was 14.6% of the median density, although reducing hunting levels to 12.2% of the median density only slightly increases the combined risk, while dramatically lowering the risk of “overharvest” from 37% to 15.5%. On the other hand, increasing the hunting rate to 17% of the mean density increases the combined risk, while the risk of “overharvest” jumps to 59%. Once hunting levels climb above 20% of the median density—which is common in many PMUs—the risk of overhunting approaches 90%.

In short, if WDFW is serious about minimizing the damage hunting does to cougar social structure, stability, and overall population health, it must set a firm maximum hunting rate that minimizes these risks—and the science published by Department biologists provides the Commission with an excellent roadmap toward doing so.

4. Change #4. Count all known human-caused mortality

When Department scientists designed the cougar hunting guidelines in 2013, they built in some flexibility to account for non-hunting cougar mortality, which had claimed an average of 29 cougars a year for the prior five years. Even if we assume that flexibility was sufficient in 2013, it is plainly

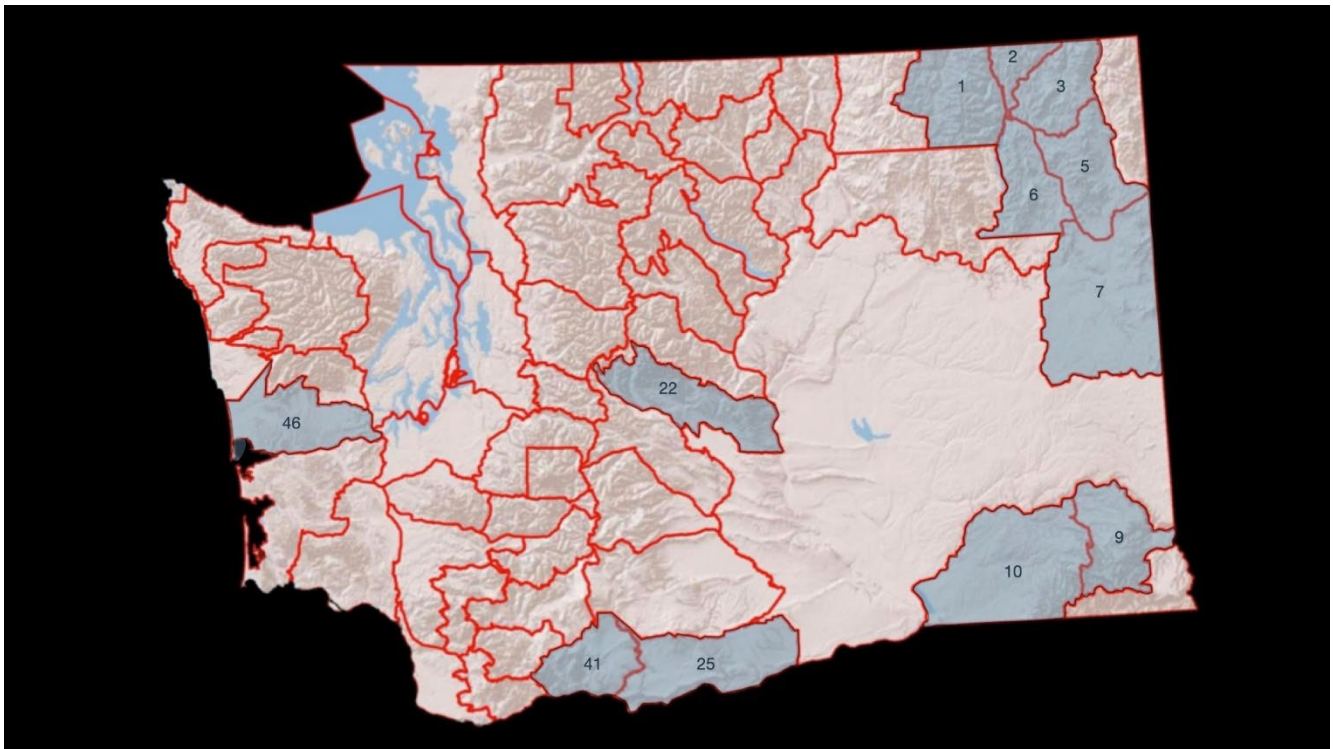
inadequate to compensate for current levels of non-hunting cougar deaths, which have quadrupled to a five-average of 115 cougars a year for the past five years.

Far from constraining hunting levels to compensate for this additional mortality, WDFW has allowed hunting levels to rise. The result has been record-high mortality levels for three of the past five years, with a five-year average of 318 cougars killed each year—an 80% increase compared to the average of 174 cougars killed each year in the five years prior to 2013. These numbers do not account for unreported poaching and wounding loss or unknown levels of tribal hunting and removal actions, which could cause overall mortality to be far higher than WDFW reports.

The increase has been particularly alarming in certain areas of the state. In Klickitat County, known cougar mortality has exceeded 36% of the estimated population over the three hunting seasons since the 2020 changes, with a high of 43% of the estimated population killed during the 2022-2023 season. Meanwhile, in the PMUs that include Stevens County, known cougar mortality has exceeded 35% of the estimated population since 2020, reaching a high of 42% for the 2020-21 season. In all, 12 PMUs have averaged cougar mortality in excess of 20% of the estimated population during the past three hunting seasons. (See Figure 1 and Table 1).

This is unsustainable. To achieve the goals of a science-based management structure, WDFW must begin to count all known human-caused mortality against the hunting guidelines.

Figure 1: PMUs with Average Reported Cougar Mortality Over 20% since 2020 Rule Change



Map showing PMUs with a three-year average total cougar mortality for 2020-2022 above 20% of the estimated population, showing large pockets of sustained excessive mortality in northeast Washington, the

Blue Mountains, Klickitat County, and on the Olympic Peninsula, where loss of genetic diversity is an increasing concern.

Table 1: PMUs with Average Reported Cougar Mortality Levels over 20% of the Estimated Population since the 2020 Rule Change

PMU	GMUs	2020-21	2021-22	2022-23	3-Year Average	Count(ies)
6	GMU 121	36.8%	42.1%	52.6%	43.9%	Stevens
9	GMUs 145, 166, 175, 178	44.4%	29.6%	44.4%	39.5%	Columbia/Garfield/Walla Walla (Blue Mountains)
25	GMUs 382, 388	37.5%	37.5%	41.7%	38.9%	Klickitat
3	GMUs 108, 111	50.0%	34.2%	31.6%	38.6%	Stevens
7	GMUs 124, 127, 130	56.1%	31.6%	28.1%	38.6%	Spokane/Stevens/Pend Oreille/Whitman
5	GMU 117	43.8%	37.5%	27.1%	36.1%	Stevens
41	GMUs 574, 578	17.2%	37.9%	44.8%	33.3%	Klickitat/Skamania
10	GMUs 149, 154, 162, (163)	14.3%	37.1%	34.3%	28.6%	Garfield/Columbia/Asotin (Blue Mountains)
2	GMU 105	26.7%	26.7%	20.0%	24.4%	Stevens
46	GMUs 642, 648, 651	13.7%	31.4%	23.5%	22.9%	Mason/Gray's Harbor
1	GMU 101	21.1%	21.1%	21.1%	21.1%	Ferry
22	GMUs 328, 329, 335	28.0%	14.0%	18.0%	20.0%	Kittitas

Sources: The estimated cougar densities are from Table 1 of the 2015-2021 Game Management Plan (pp. 111-12), while the total mortality numbers are taken from the Department's spreadsheet tracking known cougar mortality from 2011 to mid-2023, obtained through a public disclosure request.

5. Change #5. Combine the split hunting season into a single season and allow managers to shut down hunting if the maximum guideline is reached at any point. The Wildlife Committee recommended this change.

Currently, Washington's cougar hunting season is split into early (Sep. 1-Dec 31) and late (Jan. 1-April 30) seasons. Hunters report their kills during the early season, but managers do not apply the hunting guidelines to shut down hunting in any PMU before the late season begins on Jan. 1—even if hunting rates meet and then exceed the 16% maximum level. As WDFW has disclosed in its annual status and

trend reports, about half of the PMUs that exceed the hunting guidelines do so in the early season, before managers are able to stop hunting.

Combining the split season into a single season to which the guidelines apply is essential to ensuring that managers can close PMUs when hunters meet the maximum guidelines and necessary to decrease the likelihood that hunting in some PMUs will continue at unsustainable rates. If total known mortality counts toward these guidelines, it may mean that the Department would not open hunting some years in certain PMUs, if they record excessive levels of non-hunting mortality before the season begins.

This should not be a controversial change, since WDFW biologists have been advocating for this adjustment for years. For example, the 2018 Status and Trends Report explains both the problem and a potential solution:

Exceeding harvest beyond management objectives continues to be a concern. On average, 29% of the PMUs close within a given hunt season close (range = 16-45%) and of the 44 PMUs with harvest limits, 17% go beyond the upper end of the harvest guideline (Table 2). About half of the overages occur prior to January 1 (when harvest limits do not yet apply) and the other half after harvest guidelines take effect and hunters must call within 72 hours; this causes a lag time in closure... Two potential solutions to avoid exceeding harvest guidelines [are] to revert back to the 24-hour closure [in] Washington and to the single season structure, both used prior [to] 2013. [*—2018 Status and Trend Report \(p. 274\)*](#)

6. Change #6: End cougar season on March 31. The Wildlife Committee recommended this change.

The current late cougar season does not close until April 30, meaning it extends over two hunting seasons, requiring hunters to purchase a new license to hunt after March 31, and creating an administrative headache for staff.

The Commission extended the cougar hunting season into April as part of a vote aimed at increasing cougar mortality. In 2018, WDFW proposed a rule to reverse this change and restore an end date of March 31. Managers abruptly withdrew this proposed rule after 97 hunters voiced their opposition but did not indicate they had changed their mind about any of the reasons for this change detailed in the proposal:

“[Ending the season on March 31] will assist in minimizing disturbance to ungulates that are already stressed from winter and birthing; minimize confusion and burden on hunters to buy two licenses... provide the department an earlier timeframe to manage the harvest guidelines; and attempt to minimize potential of exceeding the harvest guidelines”

[*—CR-102 proposed rule change \(WSR 18-03-177\), filed Jan. 14, 2018, at p. 6.*](#)

The same reasons apply with equal force today, and this change is long overdue. At the February 12, 2024 meeting, Mr. Aoude indicated that hunters kill very few cougars in April, so this change is unlikely to result in a significant decrease in opportunity. In addition to the rationale provided by the Department in 2018, it would also serve two important purposes: 1) it would eliminate the overlap with

the hound pursuit season, reducing the likelihood that hounds will be used to illegally hunt and kill cougars; and (2) it would lower the risk of hunters killing lactating mothers and orphaning their kittens, which is high in April when many newborn kittens are not traveling with their mothers yet and thus cannot be seen by hunters.

Change # 8. Provide for immediate closure by requiring hunters to report cougar kills within 24 hours. The wildlife committee deadlocked on this proposal with a vote of 2-2 and did not recommend it to the full Commission.

For many years, the Department's annual Status and Trends Reports have indicated concerns with the generous 72-hour window for hunters to report cougar. For example, the [2021 report](#) indicates that this "lag time in closure" is a primary cause for hunting guidelines being exceeded in PMUs during the late season (p. 275). It suggests that potential solutions include reverting to a designated call-in hotline, which WDFW successfully used prior to 2015, and "reestablish[ing]the 24-hour closure rule when harvest guidelines are met." WDFW used to use a shorter reporting period and continues to do so for other game species, and it is common in other states. There is no reason not to apply it here to give managers the chance to promptly close PMUs before hunters exceed the guidelines.

Importance of Passing a New Rule Before the Next Hunting Season

For the past eight hunting seasons, we have seen cougar mortality exceed maximum levels set by Department scientists, hitting record highs statewide for three of the past five years. Rather than solving this problem, the Commission doubled down in 2020, ratifying high levels of mortality and fiddling with science to create the illusion they were below the population growth rate.

But the fact is that in several PMUs, management actions and hunter kills combine to kill between 20% and 50% of the entire cougar population in many areas each year. Such levels of mortality are unsustainable and scientifically indefensible and may have already destabilized and weakened the cougar population, especially at local levels, and led to more conflict with humans.

All the changes recommended above are based firmly on the Department's own published science and yearly reports, and none would be difficult to immediately implement through rulemaking. Nevertheless, Department management has continually argued for delay, presenting three arguments in favor of delaying rulemaking for another season.

First, managers have urged the Commission to wait until WDFW biologists present them with "new science." We hope this request will be satisfied by the Department's presentation at the upcoming meeting. The WDFW science team has already made clear that its recent research will not lead to any dramatic changes, and new science is not needed to support the requested changes. The Commission already has a wealth of science from decades of work by Department biologists to firmly support a management approach that caps known cougar mortality in each PMU to below the intrinsic growth rate. Within this management scheme, Department biologists can make any necessary adjustments from year to year if they refine or improve estimates of cougar density or growth rates, but the fact that future adjustments may be warranted is no excuse for maintaining a harmful and scientifically indefensible rule for another season.

Second, managers have advocated delaying the rulemaking until the Department finishes the new Game Management Plan. As described above, the 2020 cougar rule changes failed to comply with the Game Management Plan in place at that time—the lack of a current plan should not delay Commissioners in remedying those mistakes. The new Game Management Plan is already four years behind schedule, and we recently learned it has been delayed once more. There is no guarantee of when it will be finished and no reason that new rulemaking needs to wait for it. To the contrary, managers can adjust the cougar portion of the management plan to reflect the new rule—just as they updated the 2015-2021 plan to reflect the rule changes made in 2013.

Finally, managers have indicated there is no need to hurry because they “feel” or “think” that the cougar population is doing fine. But the truth is that we do not know how years of excessive mortality have impacted the population, either at local levels or statewide. State cougar population estimates are based on historic density numbers and the assumption that cougars are evenly distributed across their habitat. The Department has no reliable means of detecting a decline in Washington’s cougar population before it reaches a critical stage, or of assessing changes to the age and sex structure of local populations.

As the [petition](#) details on pp 20-22, decades of WDFW research provide substantial reason for concern that years of overhunting has already destabilized and disrupted the cougar social structure in many local areas. Several recent scientific studies also suggest that high hunting rates lead to more conflicts, which would explain why areas with excessive hunting are the same areas with high conflict reports and removals (see [petition](#) at 26-29). Other scientific studies raise concern about the impact of heavy mortality in certain areas on the broader population. As extreme “sink” areas draw heavily from “source” populations, they may reduce genetic diversity by decreasing immigration to other areas, while the influx of young male cougars into sink areas may mask an overall drop in the number of female cougars and surviving kittens (see [petition](#) at 23-24).

The current cougar hunting rule is scientifically indefensible and allows levels of mortality that significantly exceed limits recommended by the Department’s own biologists. The recommended adjustments would be easy to make, and each one is supported by WDFW’s own science and internal reports. There thus no rationale for allowing the current indefensible rule to remain in place for another season, especially given that the Department is unable to assess how years of excessive mortality may have already impacted the cougar population—much less what another year of it might do. Science shows it is [no longer tenable](#) to assert that killing cougars helps ungulate populations, decreases livestock predation, or lowers conflict levels. The opposite may be true: there is [substantial evidence indicating](#) that excessive cougar mortality may lead to *more* conflicts, putting people at risk.

In the face of such uncertainty about the impacts to both the cougar population and public safety, why would the Commission risk the potential consequences of maintaining a scientifically indefensible rule for yet another season?