

Options for Cougar Management



Washington Department of
FISH and WILDLIFE

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Executive Summary

Introduction

The Washington Department of Fish and Wildlife's (WDFW) mission is "sound stewardship of fish and wildlife" with the intent of serving Washington's residents. WDFW recognizes the value of natural resources to Washington residents and aims to protect, restore, and enhance fish and wildlife while providing sustainable recreational and commercial opportunities. WDFW spends significant resources managing carnivore populations while minimizing and mitigating negative encounters between carnivores and people.

This spring (2019), WDFW established an internal cougar committee to review its current cougar management and the corresponding recreational harvest rules. The objective of the committee was to prepare and provide recommendations for consideration for the 2020 season. In March 2019 the Fish and Wildlife Commission (Commission) tasked the committee with reviewing the existing harvest regulations, evaluating options and preparing recommendations for the Commission to consider for implementation in the 2020 season.

This document represents a summary of the committee's work including a description of the options the committee developed for consideration by the Commission. It also identifies other options that the committee discussed but did not recommend for consideration. Given the timeline, some of the ideas will require more thought and the department could consider them through the regular 3-year season setting or 6-year game management planning cycle.

Internal Cougar Working Group

The committee included wildlife program and enforcement staff. We tasked all committee members to convey information to and from colleagues in their regions and/or work units, and to help write and review the documents developed by the committee.

Once the discussion of options was complete, a smaller subcommittee compiled the information and notes into a single document.

The full committee met on:

Jan. 30-31, 2019

May 7-8, 2019

June 11-12, 2019

July 11, 2019 (conference call)

July 22, 2019

The subcommittee met on:

Aug. 5

Aug. 9

Aug. 16

Aug. 21

Throughout these meetings, the committee discussed several options to modify the current recreational cougar harvest rule. The group discussed and considered both biological and social aspects of human-cougar conflicts. This document identifies options that seemed most feasible under the truncated timeline and that, while not having 100% support of all committee members, still had general support from the group.

The subcommittee identified the items presented below in no particular order. You will find a more detailed explanation of each in this document.

- A. Change the cougar harvest guidelines based on habitat quality and geography
- B. Change the cougar harvest guidelines to adult-only
- C. Use hunters in conflict resolution
- D. Change the general season to Sept. 1 – March 31 with no harvest guideline
- E. Recruiting more dedicated cougar hunters
- F. Evaluate social dynamics and change guidelines accordingly
- G. Have a single season that strictly follows the guidelines
- H. Address areas with suppressed ungulate concerns

The committee determined that communication was a key theme throughout each discussion and determined that we needed to address this topic regardless of whether or not WDFW implemented changes. Therefore, we address the topic of consistent messaging below rather than as an option. The Public Affairs Office worked closely with the committee to develop a strategic communications plan that includes internal and external communications. Once the Game Division Manager briefs the director and commissioners, the cougar working group and other department staff will meet with stakeholders and begin the public engagement process.

Media outreach methods/tools to use include:

- Internal staff talking points
- FAQ/fact sheet
- Videos (distributed on FB, YouTube, and to media)
- Live webinar with chat feature
- Facebook posts
- External stakeholder meetings
- Blog posts
- News releases
- Email templates (for Legislators, County Commissioners, etc.)
- Interviews to media
- One-on-one meetings with specific groups

Introduction

WDFW develops a Game Management Plan (GMP) to guide WDFW's management. The GMP is based on science and professional judgement of WDFW biologists for the development of objectives and strategies related to each species identified. The Game management plan also goes through a rigorous public SEPA process that incorporates public opinion.

The 2015-2021 Game Management Plan outlines five goals for cougar management. The current statewide goals for cougar management are:

1. Preserve, protect, perpetuate, and manage cougar and their habitats to ensure healthy, productive populations.
2. Minimize human/cougar conflict.
3. Manage cougar for a variety of recreation, education and aesthetic purposes including hunting, scientific study, cultural and ceremonial uses by Native Americans, wildlife viewing, and photography.
4. Manage statewide cougar populations for a sustained yield.
5. Improve our understanding of predator-prey relationships.

Current Recreational Cougar Management

In terms of hunting opportunity, WDFW manages cougars at a sustainable harvest level that minimizes the risk of causing measurable population declines or breakdown of adult male territoriality.

WDFW manages cougars geographically and closes specific small-scale cougar population management units (PMUs) to hunting from Jan. 1–Apr. 30 when their harvest levels reach or exceed 12 - 16 percent. Each PMU has its own target harvest guideline based on the estimated population. Typically, WDFW evaluates these guidelines every three years, in accordance with the three-year season setting process.

Concept List

Below is a list of concepts for altering the current cougar recreational harvest structure and seasons prior to the next 3-year season setting process.

- A. Guidelines based on variable habitat quality and geography
- B. Adult-only harvest guidelines
- C. Using hunters in conflict resolution
- D. No harvest guidelines, general season
- E. Recruiting dedicated cougar hunters
- F. Evaluate Social dynamics (people) and change guidelines accordingly
- G. Single season that strictly adheres to guideline
- H. Address areas with suppressed ungulate concerns
- I. Consistent Messaging (discussed in the introduction)

A. Guidelines based on variable habitat quality and geography.

Description

WDFW’s current cougar management framework applies a statewide average of cougar density to a discrete map of habitat suitability (i.e., suitable or unsuitable) to estimate population sizes within population management units (PMUs). While this approach is straightforward and scientifically defensible, it may not adequately capture local variability in habitat quality and cougar densities for some locations.

Options

Option 1

Apply the existing harvest framework to refined PMU population estimates generated using a revised map of cougar habitat that captures finer-scale variability in habitat quality and associated cougar densities. This option would still have the dual objectives of managing for stable populations and male territoriality.

Pros	Cons
Science-based	Uncertainty related to habitat quality metrics and connections to density
More accurate local population estimates	May aggregate harvest
More prescriptive	May result in over-harvest in places
May improve public support	More complicated, so may increase public confusion
Increased opportunity in places	Decreased opportunity in places

Option 2

Apply the existing harvest framework using refined PMU population estimates generated from locally-derived density estimates obtained from cougar research projects. For PMUs without local research data, we would apply the statewide average density. This option would still have the dual objectives of managing for stable populations and male territoriality.

Pros	Cons
Science-based	Uncertain densities for PMUs/regions without research data
Greater accuracy for PMUs with research data	Decreased opportunity in places
Increased opportunity in places	May reduce public support in places
May improve public support in places	Point estimates from research may not be currently applicable to broader areas or over time and could lead to overharvest or unnecessary restriction on hunting opportunity

Implementation

Implementation Option 1

Using existing research data and the scientific literature, generate a new habitat map for Washington that classifies the landscape into one of four classes of habitat quality – “High”, “Medium”, “Low”, and “Unsuitable”. We would base habitat quality designations on a combination of biotic and abiotic landscape characteristics (e.g., forest composition, terrain ruggedness, and human footprint). The amount of area of each habitat class would be summed within each PMU and assigned a cougar density. The current harvest framework would still be applied throughout the state (i.e., season length and structure, 12-16% harvest limit), albeit with new population estimates for each PMU.

Implementation Option 2

Population estimates for PMUs associated with cougar research projects would be obtained using the locally-derived density point estimate. All remaining PMUs (i.e., those not geographically associated with a cougar research effort) would use the statewide average density (2.2 independent cougars/100 km²) to estimate the size of the cougar population. The current harvest framework would still be applied throughout the state (i.e., season length and structure, 12-16% harvest limit), albeit with new population estimates for many PMUs.

Other points

Option 1:

- There are a number of analytical tools available for creation of a new habitat map and these are well described within the scientific literature. To improve the final product, WDFW staff could also generate and compare multiple maps produced by different methods and evaluate their accuracy using existing GPS relocation and camera data.
- We would base density designations for habitat classes on the variability in density estimates provided by cougar research projects completed in Washington.
- How this change in the mapping of cougar habitat quality changes population estimates and the associated number of cougars available for harvest within individual PMUs is unknown.

Option 2:

- There would likely be a limited change in the number of cougars harvested in individual PMUs throughout much of the state.

B. Adult-Only Harvest Guidelines

Description

Cougar harvest guidelines will apply only to the adult component of the population. Sub-adult cougars and kittens, defined as less than 24 months, would not count towards closure criteria (Harvest Guideline) after December 31. As with the current regulation, the Harvest Guideline would not apply from September 1 thru December 31.

Options

Option 1

Sub-adult cougars of both sexes, defined as less than 24 months of age, are excluded from the revised Harvest Guideline calculations and seasonal closure triggers.

Pros	Cons
<p>This option may provide additional recreational opportunity including and later PMU closures in areas where harvest is currently skewed toward sub-adult animals.</p>	<p>Harvest Guidelines may be set lower than they currently are. This may result in less harvest or hunter opportunity in areas with high adult harvest.</p> <p>If the same harvest guidelines are kept this could result in more animals being harvested as only adults would count toward the guidelines.</p> <p>Harvest may not change in some PMUs with this option, since some PMUs either close before guidelines are applied or do not reach the threshold requiring a closure during the late season.</p> <p>Messaging to the public will be key.</p>
	<p>Difficult to correctly age cougars in the field. We will have to apply a correction factor when setting guidelines to account for this aging error.</p>

Implementation

Implementation of option 1

Increased training of department staff would be necessary to increase the accuracy of aging. The current hunting season structure would remain, with the only major changes being how the Department applies the sex/age data from checked cougars to the harvest guidelines. This is a simple implementation from the perspective of the field component, but messaging the changes to our constituents would require a significant effort.

We would need to recalculate the harvest guideline based on the density estimate of adult cougars (24+ months).

Other points

We also discussed sex-age specific guidelines, but decided they would be too complex. Most Hunters do not have the ability to determine sex and age classes so closures would be unenforceable and impractical.

Hunters could be required to report harvest within 24 hours providing “real time” management of cougar harvest.

C. Using Hunters in Conflict Resolution

Description

This approach focuses on shifting the lethal removal of cougars during a public safety response to a harvest opportunity for a licensed hunter.

Options

Option 1

Issue permits to the landowner covering an appropriately sized hunt area beyond his/her own private property. Landowner can select hunter.

Pros	Cons
Improve landowner relations	Not likely to be efficient or effective
Empower landowner with sense of control	Difficult to target offending animal
Potential to identify “hot spot” hunt areas for boot hunters	Reduce incentive for non-lethal prevention
Potential to use Master Hunter program	Potential for over-harvest/under-reporting
Could permit hunting over depredated carcass	Access/trespass issues
	Could take significant amount of time to get a hunter on the property

Option 2

Same as above, but authorize the use of hounds.

Pros	Cons
Improve landowner relations	Reduce incentive for non-lethal prevention
Empower landowner with sense of control	Likely negative public perception
More selective and effective; increase likelihood of removing offending animal	Legal authority challenge
	Potential for over-harvest/under-reporting
	Safety concerns: people, target and non-target animals
	Impacts on other wildlife

Option 3

Issue special tags to hunters who would accompany Enforcement and hound handler on public safety cougar response. Once cougar is treed by hounds, hunter would then harvest animal instead of it being dispatched (euthanized) by law enforcement.

Pros	Cons
Provides a form of “opportunity”	Questionable quality of “opportunity”
Harvested animal would be utilized by hunter	Legal authority challenge
No potential for over-harvest/under-reporting	Likely negative public perception

Reduces access/trespass issues	Problematic to have civilian participating in a law enforcement operation; safety concerns, risk, liability, logistics, coordination, etc.
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Implementation

Implementation Option 1

This could be implemented much like a Damage Prevention Permit is issued now. The Department would issue a permit to the landowner, who in turn provides it to a licensed hunter who has purchased a damage tag from the Department. The hunter would be required to comply with the provisions on the permit (which could include the hunting area boundaries, method of take, reporting requirements, etc.). The landowner may also be eligible for a Kill Permit or Damage Prevention Permit under this scenario.

Wildlife Conflict Specialists would work directly with the landowner and have the opportunity to provide technical advice and/or materials for non-lethal deterrent strategies, potentially even developing Damage Prevention Cooperative Agreements to assist in reducing negative interactions between large carnivores and people, pets and livestock.

Implementation Option 2

Similar to Option 1 in implementation, except the hunters in this case would be owners and handlers of hounds capable of scenting, chasing, and treeing cougars.

Implementation Option 3

The Enforcement Program would have to maintain a geographic list of participating hunters willing to respond to the scene of a public safety cougar removal operation. The Fish and Wildlife Officer (FWO) would be responsible for attempting to contact, coordinate, and direct the civilian hunter to the location of the removal effort.

Other points

Some of the discussion by the committee led toward the concept of using hunters for depredation removals also included the idea of promoting dedicated “Predator Hunters” and providing them quality and/or unique hunting opportunities. This scenario may lend itself toward an opportunity for these hunters to become engaged in promoting cougar management and coexistence through appropriate animal husbandry techniques and other non-lethal deterrent strategies.

D. No Harvest Guideline, General Season

Description

Cougar harvest would occur in a general season with a 1 animal bag limit for licensed hunters. No harvest guidelines would be in effect, except in the options below.

Options

Option 1

Cougar Season: 1 animal bag limit, no guideline.

Pros	Cons
PMUs that seldom exceed the guidelines may not see a change in harvest.	PMUs that routinely exceed the guidelines could become even greater population sinks.
Social tolerance from portions of the state with high conflict levels could return to a more accepting view of cougars on the landscape.	Some members of the public are unlikely to be accepting of this liberalization.
Simple to implement and understand.	Provides a perception that the agency thinks more cougars need to be harvested; which could lead to increases in harvest pressure.
Possibly increase tag sales and revenue.	Clumped distribution of harvest in areas with high access, potentially creating population sinks in new areas.
Possibly shift some conflict removals to harvest opportunity in areas that routinely experience early winter closures under the current system.	Not using best available science.
	Would likely have a negative impact on social stability (males) and recruitment (females) in portions of the state that routinely exceed the guidelines.
	High amount of uncertainty of future harvest.
	Would be the only western state without a harvest limit.
	No mechanism to prevent over harvest
	Increase in harvest is unlikely to decrease conflict and does not address the causes of human-wildlife conflict.

Option 2

General season structure in the winter: Harvest guidelines in effect September 1 – December 31; closures occur only during September 1- December 31.

Pros	Cons
Favorable to cougar hunters: guaranteed hunt in the winter in all PMUs	May be unfavorable to deer and elk tag holders in areas that routinely exceed the current guidelines: may not be able to hunt cougar during general season if harvest guidelines have been met.
Greater chance of adhering to the guidelines and achieving the goal of stable social structure in areas that routinely exceed the guidelines before Dec 31.	May reduce revenue from sales of big game package.
Combined season length may be longer in some areas.	Probable increase of disturbance of wintering wildlife in areas that currently close before the winter season.
May reduce harvest in some areas where a reduction is needed.	Uncertainty regarding ability to achieve goal of stable social structure with harvest levels from a full winter season.
	May reduce harvest in areas where a reduction is not needed.
	Combined season length may be shorter in some areas.

Option 3

General season structure in the fall: September 1 – December 31. No cougar hunting after January 1. No harvest guideline.

Pros	Cons
Consistency in management structure and ease of management for WDFW and hunters.	Unfavorable to cougar hunters: no winter hunting after December 31.
Favorable to deer and elk hunters who want to also hunt cougar.	Shorter than current season.
Little funding impact.	May reduce harvest in some areas.
May reduce harvest in some areas.	Uncertainty regarding ability to achieve goal of stable social structure.
	Not likely to address overharvest of some districts.

Implementation

Implementation Option 1

Decide if current season dates are still acceptable and change as necessary (e.g. exclusion of April). Continue mandatory checks and harvest data collection.

Implementation Option 2

Harvest guidelines would still be the same as current, but implemented during the early season (September 1- December 31) rather than the late season. Hunter hotline, reporting, and closures would be implemented as they currently are in the winter.

Implementation Option 3

Season closes December 31. Continue mandatory checks and harvest data collection.

Other points

None noted.

E. Recruiting dedicated cougar hunters

Description

The department should consider improving efforts to recruit cougar hunters and marketing cougar hunting opportunities. Currently, less than 1% of the licensed big game hunters in Washington are cougar-only hunters. Approximately 36% of Washington big game hunters hold a cougar tag. Through this option, the group would advise providing better information to hunters, focus the message on opportunities, and re-evaluate the current cougar season structure to provide dedicated cougar hunters improved opportunities.

Options

Option 1 Permit hunting opportunity

In this option, all hunters could hunt for cougar during regular general season (Sept 1 through December 31) and cougar-only hunters could apply for by permit winter season.

Pros	Cons
Develop a cougar advocacy group	Decreased general season hunt length
Increase revenue	Increased developmental work, may need to involve legislators
Increase control of opportunity and distribution	Potential for overharvest
Guaranteed opportunity during late season	

Option 2 Create late guidelines season only

In this option, there would only be a late guidelines cougar season that does not coincide with deer and elk season.

Pros	Cons
Develop cougar advocacy group	Decrease revenue
Increase selection	Increase pressure on adult cougars
	Upset deer and elk hunters
	Could be understood as decreased opportunity

Option 3 Create two separate seasons

In this option, there would be two separate guideline seasons.

Pros	Cons
Develop a cougar advocacy group	Splits the guideline
Guaranteed opportunity during late season	Potential for overharvest
Increased revenue	Increased seasonal management

Implementation

Implementation Option 1

Follow the current rule-making process used by the department; Work with stakeholders to assess the proposed option, request public comment, and present the proposed rule change to the Commission for consideration and adoption.

Implementation Option 2

Same as Implementation Option 1

Implementation Option 3

Same as Implementation Option 1

Other points

The working group discussed that these options may be outside of the scope of this project and may have negative perceptions from our hunting and conservation communities. However, the working group recognizes the value of cougar hunters and considers there to be a need for recruiting those interested in hunting cougars.

F. Evaluate Social dynamics (people) and change guidelines accordingly

Description

Harvest Guideline calculations can vary by social needs within designated geographic portions of the state. We would establish guidelines that do not always consider maintaining stable cougar populations based on territoriality or cougar densities.

Options

Option 1 Conduct a formal survey

Survey the general public to determine if social perceptions and tolerance support a change in harvest guidelines based upon social perceptions and tolerance.

Pros	Cons
No pros or cons were discussed as the committee determined this option would require a longer period of time and exceed the current deadline requested by the Commission.	

Option 2 Create guidelines / season based on reports received

Craft a new harvest framework that varies harvest guidelines based on local attitudes towards cougars. This option would no longer focus on managing for stable populations and male territoriality, instead applying a source-sink model of cougar management.

Pros	Cons
Greater local flexibility, more prescriptive	less biological/scientific basis for decisions
Potential for greater local support in some areas	Could over-simplify public attitudes and values
Increased simplicity in some areas	Potential for strong opposition from some segments of the public
Increased opportunity in some areas	No mechanism to prevent overharvest
	Would require strict sideboards to minimize detrimental impacts to cougars (both from a biological and social point)

Implementation

Implementation Option 1

The department would conduct public survey regarding cougar acceptance and use this information to direct a change in the management of cougars.

Implementation Option 2

Potential sources of information for determining variation in attitudes toward cougars include: the America's Wildlife Values Project, The Washington Department of Fish and Wildlife Cougar Outreach and Education Plan (WDFW 2010), and Washington-specific surveys conducted by Responsive Management.

Decide if current season dates are still acceptable or if an adjustment to the season is preferred. Continue mandatory checks and harvest data collection.

Other points

The working group has different thoughts on whether changing the ranges of the harvest guidelines to provide more flexible options based on perceived risk or social tolerance should be included. Recognizing recreational harvest is not always related to the number of complaints.

G. Single season that strictly adheres to guideline

Description

Establish a recreational cougar hunting season with a statewide harvest guideline.

Options

Option 1

General season structure (dates to be determined, 1 animal bag limit) with statewide harvest guideline. The department could vary the dates to allow for more focused cougar hunting opportunities. Closure occurs when we meet statewide guideline.

Pros	Cons
States with guidelines over large areas typically do not reach the limit or close the season.	High harvest in localized areas could close the season for the rest of the state.
PMUs that seldom exceed the guidelines may not see a change in harvest.	PMUs that routinely exceed the guidelines could become even greater population sinks.
Social tolerance from portions of the state with high conflict levels could return to a more accepting view of cougars on the landscape.	Some members of the public are unlikely to be accepting of this liberalization.
Simple to implement and understand.	Provides a perception that the agency thinks more cougars need to be harvested; which could lead to increases in harvest pressure.
Possibly increase tag sales and revenue.	Clumped distribution of harvest in areas with high access, potentially creating population sinks in new areas.
Possibly shift some conflict removals to harvest opportunity in areas that routinely experience early winter closures under the current system.	Likely result in a negative impact on social stability (males) and recruitment (females) in portions of the state that routinely exceed the guidelines (may exacerbate an existing problem).
	High amount of uncertainty in levels of future harvest.
	No mechanism to prevent over harvest in specific areas.
	Increase in harvest is unlikely to decrease conflict and does not address the causes of human-wildlife conflict.
	States with guidelines over large areas typically do not reach the limit or close the season.

Implementation

Implementation Option 1

Decide if current season dates are still acceptable and change as necessary (e.g., later opening date, exclusion of April, etc.). Continue mandatory checks and harvest data collection.

Harvest guidelines would still be the same as current, but implemented throughout the entire season. Hunter hotline, reporting, and closures would be implemented as they currently are in the winter.

Other points

The committee also discussed adhering to the current harvest guidelines for each hunt area but operating under a single season (e.g., September 1-March 31, October 15-March 31, November 15-March 31, etc.) and allowing closures as the guidelines were met. The working group had two differing views on this topic: 1) some areas would close early in the season and not allow the avid cougar hunter to take advantage of the winter hunts, and 2) depending upon the department response to human-cougar conflicts, those early closures may allow for maintaining the cougar territories in those areas.

H. Address areas with suppressed ungulate populations

Description

The 2015-2021 Game Management Plan outlines a process for determining at-risk ungulate populations and management strategies for when black bear, cougar, bobcat, or coyote management actions would be recommended as a means to achieve ungulate population objectives using the best appropriate science. The management goals for black bear, cougar, bobcat, and coyote ensure managing statewide predator populations for healthy, long-term viable population levels while being consistent with achieving ungulate population objectives.

Options

Option 1

Implement the predator-prey management guidelines as described in the 2015-2021 GMP.

Pros	Cons
No pros or cons were discussed as the working group determined this option was already available to the department through the existing 2015-2021 Game Management Plan.	

Implementation

Implementation Option 1

While adhering to the guiding principles implement predator management actions per Strategies A-D identified under Objective 3 (pages 19-22).

Other points

None noted.

Appendices

Include:

- **NOTES FROM MEETINGS AS APPENDIX**
- **CITATION FOR GMP, STATUS AND TRENDS, LINKS TO COMMISISON MEETINGS**
- **TIMELINE**