Introduction

In September 2020, Governor Jay Inslee directed the Washington Department of Fish and Wildlife (WDFW, Department) to initiate a new rule making relating to wolf management with the goal of instituting practices that will avoid the repeated loss of wolves and livestock in Washington.

Following nearly eight decades of extirpation from Washington, gray wolves began naturally recolonizing the state from populations in surrounding states and provinces. The first breeding pair was documented in Okanogan County in 2008, and Washington’s wolf population has grown at an average rate of 26% annually over the previous 12 years. Conflict between wolves and livestock occurs everywhere where the two coexist but is generally low and not uniform across the landscape. In Washington, 76% of known wolf packs were not involved in any documented livestock depredation in 2020 (average 86% from 2008 – 2020). When conflict between wolves and livestock does occur, it can become chronic and have significant economic impacts on individual livestock operations. WDFW focuses on the proactive use of non-lethal deterrents to minimize wolf-livestock conflict and considers lethal removal as a last resort when those tools have not mitigated conflict.

Overarching goals in WDFW wolf conservation and management

Two of the primary goals of the 2011 Wolf Conservation and Management Plan (Wolf Plan) are specifically pertinent to this rule making:

1. Restore the wolf population in Washington to a self-sustaining size and geographic distribution that will result in wolves having a high probability of persisting in the state through the foreseeable future (>50-100 years).

2. Manage wolf-livestock conflicts in a way that minimizes livestock losses, while not hindering the recovery or long-term perpetuation of a sustainable wolf population.

Purpose and objectives of wolf-livestock conflict deterrence rule making

Under the umbrella of the Wolf Plan goals, the purpose of developing rule changes related to wolf management in Chapter 220-440 WAC is to:

1. Establish WDFW expectations for use of non-lethal tools to mitigate wolf-livestock conflict in areas of chronic conflict, while recognizing the use of non-lethal tools is encouraged statewide.
2. Establish criteria for the use of WDFW’s lethal removal authority in areas of chronic wolf-livestock conflict.

Rule making background

Balancing the goals outlined above is one of the most important yet controversial challenges wildlife managers face, and every state that has wolf populations must make difficult management decisions seeking that balance. One of the keys to successful wolf conservation is bridging the chasm of values between people whose livelihoods are harmed by wolves and people who passionately advocate for wolves. WDFW has worked with diverse stakeholders for years to develop guiding documents both to address livestock depredations and to promote overall wolf recovery efforts. It is WDFW’s intent to prioritize the proactive use of non-lethal deterrents to mitigate wolf-livestock conflict statewide. WDFW seeks to institute practices to minimize livestock depredations to reduce the need for lethal removal of wolves.

RCW 77.04.012 mandates that wildlife, fish and shellfish are the property of the state, and declares that the Fish and Wildlife Commission, Director, and Department of Fish and Wildlife shall preserve, protect, perpetuate, and manage the same in a manner that does not impair the resource. WDFW’s wildlife management authority includes the authority to “authorize the removal or killing of wildlife that is destroying or injuring property, or when it is necessary for wildlife management….” RCW 77.12.240(1). The Fish and Wildlife Commission may also promulgate rules that allow land owners (and some related persons) to trap or kill wildlife that is threatening human safety or causing property damage without a WDFW permit, subject to limitations and conditions established in such rules. RCW 77.36.030. These statutory authorities extend to lethal removal of wolves. However, while WDFW’s enabling statutes authorize broad discretion to manage wildlife, they do not generally authorize WDFW to mandate, regulate, or enforce animal husbandry practices.

Wolf recolonization and population growth in Washington

Gray wolves were formerly common throughout most of Washington, but they declined rapidly between 1850 and 1900. The primary cause of this decline was the killing of wolves by Euro-American settlers as ranching and farming activities expanded. Wolves were essentially eliminated as a breeding species from the state by the 1930s. Following the recovery of wolves in Idaho, Montana, and Wyoming, the first fully documented breeding pack in Washington was confirmed in 2008. As of July 2011, there were five confirmed packs in the state: two in Pend Oreille County, one in Pend Oreille/Stevens counties, one in Kittitas County, and one in Okanogan/Chelan counties. As of December 31, 2020, WDFW counted a minimum of 178 wolves in 29 packs with at least 16 successful breeding pairs occupying 12 counties (Table 1). Human-related mortality, particularly illegal killing and legal control actions to resolve conflicts, is the largest source of mortality for the species.

<table>
<thead>
<tr>
<th>Year</th>
<th>Minimum count</th>
<th>Packs</th>
<th>Breeding pairs</th>
<th>Annual growth rate (%)</th>
<th>Documented mortality</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>2009</td>
<td>14</td>
<td>2</td>
<td>2</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td>2010</td>
<td>19</td>
<td>3</td>
<td>1</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td>2011</td>
<td>35</td>
<td>7</td>
<td>5</td>
<td>84</td>
<td>0</td>
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<tr>
<td>2012</td>
<td>51</td>
<td>9</td>
<td>5</td>
<td>46</td>
<td>9</td>
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<tr>
<td>2013</td>
<td>52</td>
<td>13</td>
<td>5</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>2014</td>
<td>68</td>
<td>16</td>
<td>5</td>
<td>31</td>
<td>10</td>
</tr>
<tr>
<td>2015</td>
<td>90</td>
<td>18</td>
<td>8</td>
<td>32</td>
<td>7</td>
</tr>
<tr>
<td>2016</td>
<td>115</td>
<td>20</td>
<td>10</td>
<td>28</td>
<td>14</td>
</tr>
<tr>
<td>2017</td>
<td>122</td>
<td>22</td>
<td>14</td>
<td>6</td>
<td>14</td>
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<tr>
<td>2018</td>
<td>126</td>
<td>27</td>
<td>15</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>2019</td>
<td>145</td>
<td>26</td>
<td>10</td>
<td>14</td>
<td>21</td>
</tr>
<tr>
<td>2020</td>
<td>178</td>
<td>29</td>
<td>16</td>
<td>24</td>
<td>16</td>
</tr>
</tbody>
</table>

The Wolf Plan, Wolf-Livestock Interaction Protocol, and prioritization of non-lethal conflict mitigation tools

WDFW focuses on the proactive use of non-lethal deterrents to minimize wolf-livestock conflict and considers lethal removal as a last resort when those tools have not mitigated conflict. The Department’s spending reflects that commitment, with more than 80% of the budget for wolf-livestock conflict spent on non-lethal approaches. WDFW encourages the use of non-lethal measures to deter wolf-livestock conflict, and the number of livestock producers in Washington implementing non-lethal conflict prevention measures has markedly increased.

WDFW’s recovery efforts for wolves are guided principally by the Wolf Plan. Although the Wolf Plan prioritizes use of non-lethal tools, it expressly recognizes the potential use of lethal removal to resolve repeated livestock depredations. WDFW subsequently developed non-binding guidance to address the use of non-lethal conflict deterrents and lethal removals – the most recent version is the 2017 Wolf-Livestock Interaction Protocol (Protocol).

The Protocol restates the lethal removal guidance contained in the Wolf Plan but includes more details to inform the implementation of the Wolf Plan. The Protocol provides guidance on working with livestock owners to proactively implement non-lethal measures and expectations for their use, how to confirm a wolf depredation event, the number of livestock killed or injured before WDFW would typically consider lethal removal, communications with the public, and potential implementation of lethal removal of wolves.

Notably, most wolf packs in Washington are not implicated in livestock depredation (86% on average over 13 years). The level of documented depredations has remained relatively low (ranging from four to 45 individual animals injured or killed in confirmed or probable wolf depredation incidents annually, with an average of 24 per year from 2012 through 2020) compared with the number of livestock on the landscape, despite an increasing wolf population.
Agency lethal removal of wolves

Tolerance for wolves in certain communities, particularly in rural areas where wolves live, has been and continues to be the greatest obstacle WDFW must overcome in managing wolf population recovery. Lethal removal is perhaps the most contentious issue in wolf management, but WDFW consistently works to bridge the gap of different perspectives and cultures. Many livestock producers would prefer earlier action to kill wolves that attack livestock; conversely, many wildlife advocates would prefer deferred (or no) lethal action. WDFW’s Wolf Plan and Protocol reflect compromises between these different interests.

WDFW has repeatedly considered the experiences of other states supporting wolf recovery, numerous scientific studies, and diverse (often divergent) perspectives of individuals directly affected by or generally concerned about lethal removal decisions. This is reflected in the development of the Wolf Plan and the Protocol, and the number of wolves in Washington increasing every year since resident wolves were first documented in the state.

Lethal removal by WDFW has been used in an attempt to resolve conflicts with livestock in seven of 13 years of wolf recovery in Washington, and annually since 2016. All of the affected livestock operations and pack territories were in Ferry and Stevens counties in northeast Washington, with the exception of Grouse Flats in southeast Washington (Table 2).

Table 2. WDFW wolf lethal removal actions, 2008-2020.

<table>
<thead>
<tr>
<th>Year</th>
<th>Packs with lethal removal authorized</th>
<th>Wolves removed by WDFW</th>
<th>Percentage of minimum wolf population removed</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2009</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2010</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2011</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2012</td>
<td>Wedge</td>
<td>7</td>
<td>14</td>
</tr>
<tr>
<td>2013</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2014</td>
<td>Huckleberry</td>
<td>1</td>
<td>1.5</td>
</tr>
<tr>
<td>2015</td>
<td>-</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2016</td>
<td>Profanity Peak*</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>2017</td>
<td>Sherman, Smackout</td>
<td>3</td>
<td>2.5</td>
</tr>
<tr>
<td>2018</td>
<td>Smackout, OPT*, Togo</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>2019</td>
<td>Grouse Flats, OPT*, Togo</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>2020</td>
<td>Leadpoint, Wedge, Togo</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

*Profanity Peak and OPT packs occupied the same geographic pack territory.

The Wolf Advisory Group and focus on areas of chronic conflict

The Protocol was developed in consultation with the Wolf Advisory Group (WAG), a citizen stakeholder group made up of citizens of Washington State who provide a broad range of perspectives to help inform management efforts for wolves. Participants range from livestock
producers to wolf conservation groups and animal activists to land managers and outdoor recreation organizations to hunting advocates. Despite their differences in geography, experiences, and ideology, WAG members have learned to bridge gaps in understanding and culture. Although they may not always agree on certain topics, the group works as a team toward successes for people, wolves, and livestock.

Although the implementation of the Wolf Plan and Protocol have resulted in successful wolf-livestock conflict mitigation in most occupied wolf territory, no document or rule can or does account for every scenario in which WDFW must exercise discretion. Areas that have experienced recurrent and significant levels of livestock depredation and subsequent wolf removals do not neatly fit the guidance set out in the Protocol. The Protocol does not provide guidance in a situation where chronic depredations and lethal removals have occurred in the same territory for multiple years.

Starting in December 2018, the WAG began dedicating time during their meetings to discussing areas where conflict between wolves and livestock appeared to be focused and recur annually. Some members started to question whether the guidance provided in the Protocol resulted in the desired outcome of fewer depredations in certain areas that seemed prone to wolf-livestock conflict. The elimination of the Profanity Peak pack in 2016, followed by the subsequent recolonization and removal of the Old Profanity Territory (OPT) pack in 2018 and 2019, followed by the recolonization of the Kettle pack in 2019, all in the same geographic pack territory, underscored this question.

The WAG decided to create a new section of the Protocol specifically dedicated to areas of chronic conflict and spent all or portions of their meetings from 2019 through April 2021 working on this subject. Some of the topics WAG members wrestled with include issues of shared goals, root causes of depredation, proactive conflict mitigation plans, how to get reluctant parties involved in decision making, roles and responsibilities of involved parties, and compliance with commitments made by WDFW staff and livestock producers. Despite investing significant time in the section and developing several drafts, the WAG has not come to consensus on the guidance provided by this section to date.

**Petitions for rule making and litigation about lethal removal of wolves**

Environmental organizations filed a petition for rule making in July 2013 to codify the Wolf Plan and then withdrew it after discussions with WDFW. The withdrawal was predicated on WDFW working with the WAG to develop rules to address key issues in the Wolf Plan. WDFW did work with the WAG on those issues for several months after the May 2014 meeting and was preparing to file WDFW’s proposal.

Prior to the filing, WDFW received several communications from WAG members and a couple of the petitioners expressing concern about the process leading to the development and the draft proposal itself. They asked WDFW to consider using a mediated process to develop a rule proposal for Commission consideration. WDFW also received a letter from several legislators requesting consideration of a mediated process.
During this same timeframe, WDFW received a second petition (June 2014) from the petitioners. With the concerns that had been expressed, WDFW postponed filing a rule proposal (CR-102) until after the Commission considered that petition. The Commission denied the June 2014 petition. The petitioners appealed the Commission’s decision in 2014, and Governor Jay Inslee denied the appeal at that time.

In late 2014, the Department contracted with Human-Wildlife Conflict Collaboration (HWCC) to assess the social conflict around the subject. In March 2015, Francine Madden of HWCC completed her report that discussed in detail the levels of conflict in Washington around this subject and strategies to transform the conflict into opportunities for social change. In spring 2015, WDFW contracted with HWCC and Ms. Madden for strategic guidance, to facilitate the WAG process, and increase the WDFW’s capacity to resolve deep rooted and identity-based conflict.

Environmental organizations challenged several of WDFW’s lethal removal actions from 2017 through 2019 in litigation; all of these lawsuits were either dismissed or the court ruled in favor of WDFW.

Environmental organizations followed up these decisions by filing another petition for rulemaking in May 2020, which was denied by the Fish and Wildlife Commission. In September 2020, following appeal by the petitioners, Governor Jay Inslee directed WDFW to initiate a new rule making relating to wolf management with the goal of instituting practices that will avoid the repeated loss of wolves and livestock in Washington.

The Governor asked that the Department include clear and enforceable measures in the proposed rule to achieve the following management outcomes:

- Standardized definition and requirements for the use of range riders;
- Requirements for use of non-lethal deterrents most appropriate for specified situations (wolf population and range, size and location of livestock operation, terrain and habitat, history of depredation);
- Action plans in areas of chronic depredation to end the need for annual lethal removal; and,
- Compliance measures where livestock operators do not implement the required non-lethal measures.

**Considerations/limitations for rule making**

- WDFW recognizes that repeated livestock loss and wolf removals are likely to cause significant hardship for livestock producers and their animals, as well as their communities, wolf packs, the wolf advocate community, and WDFW staff.

- Livestock depredation by wolves is not uniform across the landscape and multiple confounding factors make it difficult to predict where and when depredations by wolves will occur. Each calendar year from 2012 – 2020 (excluding 2013 and 2015 when no lethal removals of wolves occurred), wolf depredations on livestock have escalated to the
point of lethal removal authorization by the WDFW Director in 14 pack territories, 13 of which were located in Ferry and Stevens counties.

- Washington state has more than 9,000 beef cattle livestock operations alone (not to mention dairy cattle, sheep, and other livestock operations), and it is neither feasible nor sustainable for WDFW to oversee and document the implementation of nonlethal conflict mitigation tools on an individual basis for each livestock operation in occupied wolf territory.

- Although WDFW’s enabling statutes authorize broad discretion to manage wildlife, they do not authorize WDFW to mandate, regulate, or enforce animal husbandry practices or the management of livestock operations.

SEPA process overview

WDFW initiated development of a state wolf conservation and management plan in 2007 in response to: increasing wolf dispersal and pack establishment in the state; requirements under WAC 232-12-297 to develop recovery plans for listed species; and the anticipated eventual return of wolf management from federal to state and tribal authority. A determination of significance and request for comments on the scope of an environmental impact statement (EIS) was issued August 1, 2007 and seven public scoping meetings were held around the state. Also in 2007, WDFW appointed an advisory Wolf Working Group comprised of 17 citizens to provide recommendations on the plan to the Department. The Draft EIS for the Wolf Conservation and Management Plan for Washington was completed in 2009.

Nearly 65,000 people provided email and written comments on the Draft EIS. A blind peer review was also conducted during that time and WDFW received comments from 3 scientific peer reviewers. WDFW addressed the public input and met with the Working Group in June 2011 for review and comment on the proposed changes, and then produced the Final EIS/Recommended Plan.

Proposed Supplemental Environmental Impact Statement

The proposed SEPA review process for this rule making includes adoption of the 2011 Final EIS for the Wolf Plan and preparation of a supplemental EIS to specifically address the impacts related to the rule making alternatives. A supplemental EIS process involves the issuance of a draft (with public comment period) and a final document that includes a response to comments.

Alternatives in the Supplemental EIS

Alternative rule making options (including the no-action alternative) should present meaningful analysis for WDFW to consider in order to meet the objectives of this rule making (listed above on page 1). The alternatives considered in the 2011 Final EIS include both lethal and nonlethal measures to mitigate wolf-livestock conflict. The alternatives presented for proactive measures to reduce depredation specify personnel who would provide technical assistance to livestock producers to implement proactive measures to reduce conflicts, but do not analyze criteria for
use of these measures (e.g., the number of measures in place, timeline of implementation, appropriateness of the measure for the specific scenario, expectation of use). The alternatives presented for lethal control of wolves involved in repeated livestock depredations specify that lethal control is allowed consistent with state and federal law under all state-listed statuses, but do not provide or analyze criteria for use of lethal removal beyond the following (which are also repeated in the Protocol):

“Lethal removal may be used to stop repeated depredation if it is documented that livestock have clearly been killed by wolves, non-lethal methods have been tried but failed to resolve the conflict, depredations are likely to continue, and there is no evidence of intentional feeding or unnatural attraction of wolves by the livestock owner. Situations would have to be evaluated on a case-specific basis, with management decisions based on pack history and size, pattern of depredations, number of livestock killed, state listed status of wolves, extent of proactive management measures being used on the property, and other considerations. If it is determined that lethal removal is necessary, it would likely be used incrementally, as has been done in other states, with one or two offending animals removed initially. If depredations continue, additional animals may be removed” (2011 Final EIS, pg. 34).

The following proposed alternatives for the supplemental EIS address specific options for analysis that are not specifically addressed in the 2011 FEIS.

**Alternative 1: Develop a rule based on the Protocol to establish general criteria for the use of non-lethal and lethal measures to mitigate wolf-livestock conflict.**

Under Alternative 1, WDFW would use the criteria outlined in the Protocol to codify in rule the use of non-lethal and lethal measures to mitigate wolf-livestock conflict.

- The components of the rule based on the Protocol would include expectations for non-lethal deterrence measures, examples of deterrence measures, range rider roles and responsibilities, the depredation investigation process, criteria for lethal removal of wolves, and implementation of lethal removal of wolves.

- This alternative includes specific thresholds of depredation at which WDFW would consider lethal removal (specifically, at least three depredation events within a 30-day rolling window of time, or at least four depredation events within a 10-month rolling window of time, and at least one depredation must be a confirmed event).

- To consider lethal removal, this alternative requires that at least two proactive deterrence measures and/or responsive deterrence measures have been implemented and are in place a sufficient amount of time; depredations are expected to continue; and the lethal removal of wolves is not expected to harm the wolf population’s ability to reach recovery objectives statewide or within individual wolf recovery regions. The specific proactive deterrence measures and/or responsive deterrence measures are not prescribed.
▪ Lethal removal would be predicated on the use of non-lethal conflict deterrence measures as set out in rule.

▪ Lethal removal authorizations would not have specific expiration dates, but instead be discontinued at the discretion of the Director or Director’s designee.

▪ This alternative provides examples of effective nonlethal deterrence measures but does not prescribe specific methods that should be in place prior to the consideration of lethal removal.

▪ There are no special provisions for areas of chronic conflict in this alternative.

▪ This alternative would include a provision in rule for discretion by the Director (or Director’s designee) in extenuating circumstances.

Alternative 2 (preferred alternative): Develop a rule that uses area-specific conflict mitigation plans to establish criteria for the use of non-lethal and lethal measures to mitigate wolf-livestock conflict in areas of chronic conflict.

Under Alternative 2, WDFW would develop a rule based on the use of area-specific conflict mitigation plans through which WDFW would establish area-specific criteria for the use of non-lethal and lethal measures to mitigate wolf-livestock conflict in areas of chronic conflict. The rule would focus WDFW resources to areas of Washington where most wolf depredations on livestock and related wolf removals take place, specifically pack territories (or a portion thereof) where wolf depredations of livestock occurred and lethal removal of wolves was authorized in two of the last three years.

▪ The components of the rule based on this concept would include general expectations for non-lethal deterrence measures, designation of chronic conflict areas, components and provisions of area-specific conflict mitigation plans, criteria for lethal removal of wolves in chronic conflict areas, and expectations for lethal removal authorizations.

▪ This alternative does not include specific thresholds of depredation at which WDFW would consider lethal removal; rather, thresholds would be established in each area-specific conflict mitigation plan.

▪ This alternative would not establish specific non-lethal deterrence measures that would be required before WDFW would consider lethal removal; rather, expectations for the use of specific non-lethal deterrence measures would be established in each area-specific conflict mitigation plan.

▪ Under this alternative, a rule would state that in order to consider lethal removal in chronic conflict areas under this alternative, WDFW and livestock producers must follow the expectations established within the conflict mitigation plan. The rule would outline
the subject matter that must be addressed in a conflict mitigation plan and the processes WDFW would use in adopting a conflict mitigation plan. The rule may establish minimum substantive requirements that would be contained in a conflict mitigation plan.

- Lethal removal would be predicated on the use of non-lethal conflict deterrence measures as set out in rule and the provisions of each conflict mitigation plan.

- Lethal removal authorizations would expire when the wolf or wolves identified in the authorization have been removed or after 30 days regardless of whether wolves have been removed, but could be extended or amended to include other wolves in the pack area if additional depredations are documented in the 30 days following the initial authorization or other extenuating circumstances are identified. Lethal removal authorizations could be discontinued at the discretion of the Director or Director’s designee based on factors such as separation between wolves and livestock (e.g., the end of a grazing season).

- Under this alternative, if a livestock producer within a chronic conflict area chooses not to participate in or adhere to the expectations outlined in a conflict mitigation plan, the Director (or Director’s designee) may consider lethal removal within the area only if other livestock producers in the same wolf pack area are experiencing wolf depredations and they have deployed appropriate deterrence measures meeting expectations outlined by the Department.

- This alternative would include a provision in rule for discretion by the Director (or Director’s designee) in extenuating circumstances.

**Alternative 3: Develop a rule similar to the “Petition to amend the Washington Administrative Code to require use of nonlethal techniques to reduce livestock-wolf conflict” sent to the Fish and Wildlife Commission on May 11, 2020 (Petition), which would establish criteria for the use of non-lethal and lethal measures to mitigate wolf-livestock conflict both generally and with specific criteria for areas with chronic conflict.**

Under Alternative 3, WDFW would develop a rule similar to the proposed rule attached to the Petition, which would codify in rule criteria for the use of non-lethal and lethal measures to mitigate wolf-livestock conflict. This alternative would be the most prescriptive of the four alternatives and would include the most specific expectations for use of non-lethal and lethal measures to mitigate wolf-livestock conflict.

- The components of the rule based on the Petition would include expectations for non-lethal deterrence measures, examples of deterrence measures, specific expectations for range riders, criteria for lethal removal of wolves, expectations for lethal removal authorizations, and components and provisions of area-specific conflict mitigation plans.

- Under this alternative, certain non-lethal deterrence measures would be prescribed, including delaying turnout of livestock calves to forested/upland grazing pastures until
calves reach at least 200 pounds and after wild ungulates are born in mid-June; ensuring sanitation (removal, burying, burning, liming, or fencing off of livestock carcasses) is being conducted; and range riding if wolf-livestock conflict occurs on public land.

- This alternative outlines specific expectations for range riders, including specific numbers of range riders; an expectation to spend a certain number of hours in the field including at night if necessary; a requirement to carry a GPS; and daily logs for Department-contracted range riders.

- This alternative requires WDFW to confirm the presence of any wolf den or rendezvous site and instruct livestock producers to move salt blocks away from the den or rendezvous site, clean up the area around the salt blocks, and move and keep cattle at least one mile away from the sites. Livestock killed within 1000 yards of a known den or rendezvous site on public lands would not count toward lethal removal thresholds.

- This alternative includes specific thresholds of depredation at which WDFW would consider lethal removal (specifically, at least three depredation events within a 30-day rolling window of time, or at least four depredation events within a six-month rolling window of time, all of which must be confirmed events).

- To consider lethal removal, this alternative requires the following:
  - At least two Department-approved appropriate non-lethal techniques are in place;
  - The non-lethal techniques are applied to the specific group of livestock involved in the conflict and used for at least two weeks prior to the conflict occurring;
  - Carcass sanitation is carried out at all times separate from the use of other non-lethal techniques;
  - Range riding is used as one of the non-lethal measures if the depredations occur on public land;
  - WDFW does not believe other available non-lethal techniques exist that could reasonably be employed in the specific situation to mitigate further conflict;
  - Depredations are expected to continue;
  - The wolf or wolves identified for removal are those the Department reasonably believes to be associated with the qualifying livestock depredations (the removal of which the Department reasonably believes will decrease the risk of repeated predation in the affected locale);
  - The lethal removal of wolves is not expected to harm the wolf population’s ability to reach recovery objectives statewide or within individual wolf recovery regions;
  - Lethal removal will not orphan or jeopardize the survival of any pups under a year and a half old; and,
  - Livestock producers are operating pursuant to all relevant applicable laws, all terms and conditions of any applicable federal or state grazing permits, and all notification, investigation and reporting requirements of the Department.
- Lethal removal would be predicated on the use of non-lethal conflict deterrence measures as set out in rule.

- Lethal removal authorizations would expire when the wolf or wolves identified in the authorization are removed or after 30 days, whichever comes first. No more than two wolves would be lethally removed in any given removal action to allow time to assess the impacts of removal.

- Under this alternative, there would be special provisions for areas of chronic conflict (including development of area-specific conflict mitigation plans), defined in this alternative as areas where wolf-livestock conflict has occurred for at least two consecutive years, or two out of five years in the same area or with the same livestock operator. No lethal action would be taken against wolves on public lands grazing allotments or for livestock predations which occurred on public lands grazing allotments if there have been repeated wolf-livestock conflicts and wolf lethal removals on that same allotment for two consecutive years or in two out of five years.

**Alternative 4: No Action. WDFW would not develop rule changes related to wolf-livestock conflict deterrence.**

WDFW wolf-livestock conflict management and expectations for non-lethal and lethal measures would continue to operate under the guidance of the Wolf Plan and Protocol. The components of Alternative 4 would be similar to Alternative 1, but the use of non-lethal and lethal measures to mitigate wolf-livestock conflict would not be codified in rule.

**Comparison of Alternatives**

Table 3. The components of four alternatives for wolf rule making to establish criteria for the use of non-lethal and lethal measures to mitigate wolf-livestock conflict.

<table>
<thead>
<tr>
<th>Element</th>
<th>Alternative 1</th>
<th>Alternative 2 (Preliminarily assessed as agency preferred)</th>
<th>Alternative 3</th>
<th>Alternative 4 (No Action, current management)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General expectations for non-lethal deterrence measures</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes, but not codified in rule</td>
</tr>
<tr>
<td>Expectations for range riding</td>
<td>Yes</td>
<td>Yes, in area-specific conflict mitigation plans in chronic conflict areas if applicable</td>
<td>Yes</td>
<td>Yes, but not codified in rule</td>
</tr>
<tr>
<td><strong>Prescribes specific proactive nonlethal measures that should be in place prior to the consideration of lethal removal</strong></td>
<td>No</td>
<td>Yes, in area-specific conflict mitigation plans in chronic conflict areas</td>
<td>Yes</td>
<td>No</td>
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<tr>
<td><strong>Area-specific proactive conflict mitigation plans</strong></td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Depredation thresholds for consideration of lethal removal of wolves specified in rule</strong></td>
<td>Yes - at least three depredation events within a 30-day rolling window of time, or at least four depredation events within a 10-month rolling window of time, and at least one depredation must be a confirmed event</td>
<td>No - thresholds would be established in area-specific conflict mitigation plans in chronic conflict areas</td>
<td>Yes - at least three depredation events within a 30-day rolling window of time, or at least four depredation events within a six-month rolling window of time, all of which must be confirmed events</td>
<td>No</td>
</tr>
<tr>
<td><strong>Lethal removal predicated on use of nonlethal tools</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes, but not codified in rule</td>
</tr>
<tr>
<td><strong>Expiration dates on lethal removal authorizations</strong></td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Includes provision for Director</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes, but not codified in rule</td>
</tr>
<tr>
<td>discretion in extenuating circumstances</td>
<td>Statewide, but could be applied solely to chronic conflict areas</td>
<td>Chronic conflict areas only</td>
<td>Statewide with special provisions for chronic conflict areas</td>
<td>Statewide</td>
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<td>----------------------------------------</td>
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<tr>
<td>Geographic scope</td>
<td></td>
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</tbody>
</table>
