



**Meeting Report
Wolf-Livestock Stakeholder Subgroup
February 19, 2014**

Yolo Bypass Wildlife Area Conference Room
45211 County Road 32B,
Davis, CA 95618



California Department of Fish and Wildlife

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1.0 Introduction

On February 19, 2014 the Wolf-Livestock Interactions Subgroup (WLIS) of the California Wolf Stakeholder Working Group (SWG) convened in Conference Room of the California Department of Fish and Wildlife's Yolo Bypass Wildlife Area in Davis. This was the fifth meeting of the WLIS, which was established to help the California Department of Fish and Wildlife (CDFW, Department) develop a consensus-driven framework of management strategies for effectively dealing with potential wolf impacts on California's livestock populations.

2.0 Meeting Objectives and Mechanics

The purpose of the meeting was to continue building consensus through discussion of potential topics for inclusion in a Wolf-Livestock Interactions chapter in the California Wolf Plan.

Objectives of the meeting as initially planned were:

1. Introductions and Housekeeping
2. Briefly review/discuss February 11 version of State by State Comparison of Management Strategies
 - a. Review updated items on this version
 - b. Identify any inaccurate or incomplete statements
 - c. Identify any other elements/categories which will be useful to developing a California strategy
3. Briefly review/discuss February 11 version of lessons learned document. Note changes made based on last meeting.
4. Overview of first concept
5. Overview of second concept
6. Discussion/questions about the concepts
7. Discuss next steps
8. Public questions (last ten minutes)

The meeting was attended in person by ten stakeholders and two CDFW staff, with two additional CDFW staff attending via conference line. Appendix A provides a list of participants, their affiliations, and their contact information. Other attendees included three legislative representatives. Appendix B provides a list of those individuals. The agenda for the meeting is captured in Appendix C.

The meeting began with introductions led by Mr. Mark Stopher, who serves as chair of the Wolf-Livestock Subgroup (WLIS), and housekeeping items. Next, Mr. Stopher explained the updates to the Draft Wolf-Livestock Interactions: State-By-State

Comparison of Management Strategies (Feb. 11 version; Appendix D), and the Draft Overview of Lessons Learned from the Western United States Regarding Wolf-Livestock Interactions (Feb. 11 version; Appendix E). These documents were developed by Mr. Stopher, and amended via discussion by the Wolf-Livestock Subgroup, in effort to reach consensus on strategies the Department may adopt for managing wolf-livestock interactions in California. After completing their discussions of those two documents, the group discussed some initial management concepts as developed separately by the Agriculture and Conservation caucuses in the interim since the February 3rd meeting (Appendix F and G).

After a brief discussion around the impacts of endangered species bureaucracy and cooperating with government, a meeting date and time were agreed upon and the meeting then concluded.

3.0 Meeting Outputs

Introductions and Housekeeping

After the group introduced themselves, Mr. Stopher informed the group that if members of the public arrive and wish to ask questions or provide comments, he will provide 10 minutes at the end of the meeting for them to do that. He then described where folks could find lunch after this meeting concludes, and reminded everyone that Director Chuck Bonham would attend the next full SWG meeting on February 26, which will also be held at the Yolo Bypass Wildlife Area.

Briefly Review/Discuss February 11 Version of State by State Comparison of Management Strategies

Mr. Stopher explained the edits he made to this document based on the group's discussion at the February 3rd meeting, which consisted of the following:

- Row 5, Wyoming: will compensate for missing animals at up to a 7:1 ratio for each *confirmed wolf depredation (mortalities)* within the Trophy area in the northeastern part of the state. Compensation is limited by the number of animals actually missing.
- Row 5, Washington: have not yet received a reply; comment left in place as a placeholder
- Row 6, Montana: still need to change MY to MT
- Row 10, Oregon: no reply from ODFW yet to answer if a confirmed depredation outside an Area of Known Wolf Activity is counted as a qualifying event toward compensation; comment left in place as a placeholder

- Row 18, Montana: specifics added with respect to wolf budget breakdown
- Row 18, California: still need to add the \$300,000 Section 6 funds
- End Notes vii and viii now include citations from Oregon and Washington codes relative to depredation
- End Note x explains that County Sheriff can act as a first responder at a depredation but ODFW much make the determination for tax credit or compensation purposes

Ms. Noelle Cremers provided the group with a summary of her conversation with her counterpart at the Washington Farm Bureau (WFB). He told her that there was a minority report generated by the agricultural community at the end of the planning process because they were not fully supportive of the outcome of the plan. He also said that he believes the Washington plan is better than Oregon's, and with respect to provisions for livestock producers Ms. Cremers agrees. The plan allows for removal of problem animals, and for livestock producers to acquire "caught in the act" permits which are much broader than Oregon's version of the permit. Ms. Cremers did not know if these permits are available for use on allotments as well as private property. Washington has a cooperative agreement program that provides money (\$5,000) (note: according to Washington Department of Fish and Wildlife, this is \$10K) and technical support for nonlethal measures. Producers can choose to enter into the agreement, or alternatively, can use a volunteer checklist that allows them to demonstrate the nonlethal methods they've been employing without having to enter into a formal agreement. The Washington Dept. of Fish and Wildlife does not have ongoing funding for the program but are seeking legislation this year to put long-term funding in place. With respect to compensation, they have \$150,000 allocated annually for elk and deer damage, so there is a precedent for wildlife damage compensation. However many livestock producers in Washington do not request compensation for their losses, and Ms. Cremers believes that will be the case in California as well. Washington does fund range riders so there is a human presence on the range, and they have removed a pack that was depredating livestock. She is uncertain if the range rider funding is part of the cooperative agreement program, or a separate program, and plans to follow up on that question. WDFW collars the alpha males and females from each pack and the information is available on a non-public website so producers have access to the pack's locations.

Briefly Review/Discuss February 11 Version of Lessons Learned Document

Next, Mr. Stopher explained the edits he made to this document based on the group's discussion at the February 3rd meeting, which consisted of the following:

- 11a, line 2: still need to add the actual number (894) as requested previously
- Table 1: added a row for number of breeding pairs per state per year; no documentation for 2007 and 2008 for Oregon and Washington. Most states only report the number of breeding pairs. Idaho reports both the number of packs known to have produced pups (the 1st number) and the number of breeding pairs (the 2nd number). Not all packs that produce pups necessarily rear them to the end of the year.
- End notes updated to reflect the above changes

Mr. Stopher pointed out that the numbers of breeding pairs in Wyoming, Montana, and Idaho are relatively stable over the six year period presented in Table 1, but in Oregon and Washington those numbers increased, and that is the expected pattern in areas that are newly colonizing.

Overview of Wolf-Livestock Strategy Concepts

For this portion of the meeting, one member from each caucus (Agriculture and Conservation) presented the results of their discussion over the items in the Wolf-Livestock Strategy Template. This template was developed to assist the groups in considering specific aspects of a Wolf-Livestock management strategy that their respective caucuses could support. These areas of focus were derived from the group's work on the State-by-State Comparison Table and Lessons Learned document discussed above. The discussion below consists of the explanations provided by each group's caucus. Appendices F and G contain their actual results.

Overview of First Concept (Conservation Caucus; Appendix F)

- Item A: We could go either way on this item, and wanted to know if the agriculture community felt compensation would be useful – if it would meet their needs; we recognize that the urban solution is often to give money to solve a problem, and money may not necessarily solve this problem for them; with that disclaimer we're open to the idea but with qualifiers to how it's administered. More of what we've seen is the ability to provide funding and technical assistance into nonlethal, preventive resources seems to be something producers like to have access to; makes coexistence more possible than simple compensation
- Item A, bullet 2: The philosophy is that public lands belong to the public and we view the low fees charged for the allotments as a form of compensation they receive already to offset the higher costs of losses from depredations on rangelands; further the wildlife on those public lands also belongs to the public so and should be allowed to continue to live there

- Item B: We all felt we did not know enough about the Dept. of Agriculture (CDA) administering a compensation program so to start we prefer CDFW but possibly CDA if we could learn more possibly through a presentation by them. What we'd like to know is if they administer other compensation programs for wildlife property damage, how they do so, and what is the history behind their involvement in that program; also what they would need to administer the program.
- Item G: we do not consider Wildlife Services to be a trusted partner, but we understand the agricultural community does. That is something that will need further discussion around this table because it is a pretty big point of departure. Our biggest concern is lack of accountability and transparency. *Kovacs: Wildlife Services has lots of experience with depredation issues, and were very helpful dealing with OR7*
- Item H: Because wolves are endangered their locations are sensitive and protections are needed to assure their longevity; not certain if the provisions of this item should apply on both public and private lands, but since we want people grazing on public lands to use nonlethal methods, it would make sense that it would apply to both; I think the distinctions for public vs private land grazing will be on the compensation issue and the lethal take issue
- Item J: some examples of non-injurious harassment include range riders, firecrackers, fladry, shouting, banging pots, RAG boxes, but rubber bullets are considered injurious non-lethal harassment – not a category offered as an option in the template; chasing on an ATV would be considered take if wolves are listed – can cause the animal to use energy they need for survival/reproduction but there is a gray area that we can probably work out with more discussion; I don't think a guard dog killing a wolf would be considered take; in the Oregon plan and possibly the Washington plan, when take is allowed without a permit, you still need a permit to do injurious non-lethal harassment because the agency wants to know if there's an injured wolf around
- Item L: moving depredating wolves to another area should not be an option. After relocation they're not guaranteed to stay there or discontinue their behavior
- Item M: what does "except by CDFW" mean? *Stopher: good question but I don't have an answer today*
- Item N, non CESA listed: these are just general at this point; we thought about looking at the very specific items in the Washington and Oregon plans but decided that California is its own state with potentially different options; the definition of chronic depredation varies by state; Oregon's is 4 depredation incidents within 6 months and nonlethal methods have to have been in place to qualify as chronic depredation; if the first incidence of depredation occurs outside an Area of Known Wolf Activity it doesn't count toward the chronic scenario but the next 4 would; In Washington they are still working out the definition of chronic depredation.

Agriculture Caucus Comments and Questions

- What are unnatural attractants?
- What are the specific things you want to learn about the CDA?
- Are you interested in learning more about CDA crop damage programs?
- If you are only providing general information about wolf locations why do landowners have to sign an agreement not to share the information? Seems like a lack of trust.
- We will have to find agreement on how specific the location information should be; it needs to be specific enough to be helpful
- Relative to the agreement, how would it be binding and who would enforce it?
- Does Item H apply to producers on both private and public lands; timeframe for notification will be especially important on public lands
- Are there distinctions between public and private land grazing for any of the other Items in your Concept document?
- In California many ranches would not succeed without the summer pasture on public lands, and the grazing fee is only one part of what producers are required to do, such as significant infrastructure improvements
- What are some examples of non-injurious harassment? Is chasing on an ATV considered non-injurious in which the intent is a negative stimulus for the animal? If a guard dog, which is considered a non-lethal deterrent, chases a wolf is that non-injurious?
- It's my understanding that you can obtain permits after the fact but you just have to notify within 24 hours
- Is there a standard definition of chronic depredation? If a depredation occurs outside an Area of Known Wolf Activity would the nonlethal methods have to have been in place to qualify?

Overview of Second Concept (Agricultural Caucus; Appendix G)

- Item A: the preference is that producers have the tools to protect their livestock rather than be paid for losses; they fear that a compensation program lessens the motivation to protect, and because the compensation only makes up for a small part of the true cost of the losses, they would rather not have the losses to begin with.
- Item D: if a compensation program is put in place, it should pay for both missing and confirmed losses on both private and public land; that said, there are many

other pieces that need to be discussed first before a compensation program; under both CESA listed and non CESA listed scenarios

- Item E: we wouldn't want to see a situation as in Oregon where you have to have a certain number of losses before you can take control actions against a pack; I wouldn't want to say you have to have done non-lethal measures; if someone forgot to turn in their paperwork and now they can't be considered for lethal actions, and many producers don't want to enter into an agreement with the agency and have the agency coming out regularly and checking up on them; the challenge is, a rancher may be fine with implementing these measures, but is unwilling to have an agreement with a government agency, you now have set up a situation where they are subject to losses with no recognition of those losses solely because they didn't want to sign an agreement; there's no question that if someone is grazing in wolf areas, they will be taking feasible preventive measures; this is why they developed the checklist in Washington, so that ranchers could keep a record of their preventive measures without having to enter into an agreement or have the agency making regular visits. *Stopher: two other observations I will make; in Wyoming, Montana, and Idaho, since the federal delisting and the states have taken over management, the requests for and implementation of nonlethal deterrents has plummeted and producers choose lethal control in almost every circumstance; the other point is that lethal control without some documentation of due diligence in this state will be a real challenge*
- We have to remember that there are many different configurations of ranching situations like feedlots; but in the summer on a 100,000 acre allotment, the effectiveness is more challenging. *Stopher: so the take home is a method that's effective in one setting may not be in another setting*
- Item H: *Stopher: does your group have a concern about the other concept's condition that this information is shared on a need to know basis? How is the need to know determined? A producer in a particular area is notified there is a wolf in close proximity to his cattle – is there an agreement in place with the agency that the information is shared with others who are engaged in management of your livestock and it ends there – that's an example of a condition – you're not going to post it on your blog. With details yet to be determined, is that a reasonable expectation?* I would be concerned that the agency isn't going to know where the livestock are; is it that the wolf is in an area of an allotment or the ranch, how does that work out? If he can't share the info with his neighbor and the info is 3 hours old and the wolf is moving... It's a fair request that it not be made public but if one rancher is running cattle with another rancher, I guess we still have to figure out the specifics.
- Item I: the challenge gets back to the paperwork requirement – we're doing these things anyway; and there's a recognition under CESA that if a species is listed

there is a different standard the Department would likely be held to than if it's not listed; the Department would be the ones to implement lethal take if CESA listed; this may become moot issue. *Stopher: I understand that to mean that in the CESA column, I modifies E*

- Item K: from the previous discussion we do need to have further definition for non-injurious and injurious. *Stopher: and we would have to define what a threat is*
- Item N: we should probably change that to pursuing or killing; that paper that showed no correlation between weight loss and mere presence of wolves, but there was a correlation when a depredation had occurred; it is tricky to tease out the true impact so we need to discuss and figure out what constitutes threatening versus just passing through; I'll add that cows about to calve are more prone to abortion and other problems when they are stressed – that is well documented with regard to lots of predators

Conservation Caucus Comments and Questions

- In the states using non-lethal requirements, the agency checks in regularly with the producers that their methods are still in place; it's not that the rancher has to keep filing – it's up to the agency to follow up
- Is the distinction that matters here one of an unwillingness to engage in conflict prevention versus the documentation and unwillingness to have a relationship with the government?
- In Washington, the voluntary checklist has elements that are absolutely required before lethal control is allowed, so it may still be considered voluntary but if they haven't done those required items it won't count toward lethal control
- Any of us who've been in wolf conservation for a while understand those nuances of differences in effectiveness in different settings
- For Item I, if specific criteria are developed for the different types of grazing permutations, can No change to Yes? If you go back to E, your suggestion is there should be voluntary participation in nonlethal deterrent assistance, and if they didn't agree to participate you said a depredation event should still count toward lethal control, if we now get to I, you're saying non-lethal deterrents could be required if specific criteria are developed; it feels like I and E are not in accord with each other
- The previous discussion about wolves in proximity to cattle having an effect on weight gain, foraging behavior, etc. constituting a threat to property, then jumping to Item N, does that mean that you should be able to kill a wolf if it's on your ranch because it's a threat to property?

At this point in the discussion Mr. Stopher solicited ideas from the group about how to proceed with these initial efforts at generating strategies for wolf management. The group decided to have a break and discuss in their caucuses what they would recommend. After their break they returned and made the following suggestions:

Conservation: Merge the suggestions from the two groups to facilitate viewing where there was agreement so they can focus on those areas that still require further discussion. There are two approaches for those items: start with the more challenging items, or go for the items that will be easier to find solutions to. Another idea, when working on this template we found it easier to start from the bottom because some of those lower items informed the ones above them. We would also like to discuss which items discussed today are the exceptions or outliers versus which are deal breakers for the groups.

Agriculture: We had the same thought about merging the document. We would like to look at these things side by side before the next meeting during which we can have the more detailed discussion about these items.

Summary and Wrap-up

The final discussion of the meeting revolved around concerns from members of the agriculture caucus that it is clearly understood what the impacts are to livestock producers of having additional levels of bureaucracy to contend with regarding endangered species compliance, as well as the personal impacts to their lives when they do cooperate with government agencies. Such cooperation is often viewed negatively in the community and can lead to ostracization. Several stakeholders told the group of the reluctance on the parts of their constituencies to participate in the wolf management planning effort.

Mr. Stopher explained that what we are striving for in the wolf management planning effort is that the stakeholders can support at least most of the plan and can live with the rest of it, however we may not get to that point. At the end of the day the Department will build a wolf plan with consensus or not, and it will be the Department's plan. The Department is hopeful for a plan that everyone can both live with and recognize that it is the best possible plan for everyone.

Finally, the meeting concluded with a decision to meet from 1pm to 4pm on March 25th which is the day before the next full SWG meeting. Mr. Oldfield requested that Mr. Stopher identify a couple of specific items for discussion at the next meeting, sometime in advance of the meeting.

Action Items

- Mr. Stopher will send out the minority report from the Washington wolf planning effort
- Define “unnatural attractants”
- Add the element injurious non-lethal harassment as an element in the template
- Distinguish between injurious and non-injurious harassment
- Discuss what a threat might constitute as it relates to what actions can be taken when wolves are present
- Mr. Stopher will revise the template document to combine the concepts from each caucus side-by-side in advance of the next meeting
- Mr. Stopher will identify some particular items for discussion prior to the next meeting

**APPENDIX A
WORKSHOP PARTICIPANTS**

Name	Affiliation	Email
Stakeholders		
Noelle Cremers	California Farm Bureau	ncremers@cfbf.com
John Mc Nerney	The Wildlife Society – Western Section	jmcnerney@cityofdavis.org
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California Department of Fish and Wildlife Staff		
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Karen Kovacs	Wildlife Program Manager, Region 1 – CDFW	karen.kovacs@wildlife.ca.gov
Karen Converse	Environmental Scientist – Wolf Program	karen.converse@wildlife.ca.gov
Mark Stopher	Senior Policy Advisor – CDFW	mark.stopher@wildlife.ca.gov

**APPENDIX B
PUBLIC PARTICIPANTS AND COMMENTS**

Legislative Representatives		
Name	Affiliation	Email
Erin Ryan	Congressman La Malfa's Office	erinmarie.ryan@house.ca.gov
Ashley Adishian	Senator Nielsen's Office	ashley.adishian@sen.ca.gov
Jennifer Horne	Congressman La Malfa's Office	jennifer.horne@house.ca.gov

APPENDIX C

PROPOSED AGENDA

Wolf-Livestock Subgroup

9-12 AM February 19, 2014

Yolo Bypass Wildlife Area Headquarters

Teleconference Line 916.574.0259 no passcode required

1. Introductions and Housekeeping
2. Briefly Review/discuss February 11 version of State by State Comparison of Management Strategies
 - Review updated items on this version
 - Identify any inaccurate or incomplete statements
 - Identify any other elements/categories which will be useful to developing a California strategy
3. Briefly Review/discuss February 11 version of lessons learned document. Note changes made based on last meeting.
4. Overview of first concept
5. Overview of second concept
6. Discussion/questions about the concepts
7. Discuss next steps

Public questions (last ten minutes)

APPENDIX D

**WOLF-LIVESTOCK INTERACTIONS: STATE-BY-STATE COMPARISON OF
MANAGEMENT STRATEGIES (February 11, 2014 VERSION)**

February 11, 2014. draft for consideration by the California wolf-livestock interactions subgroup of the California Stakeholder Working Group

WOLF-LIVESTOCK INTERACTIONS, STATE-BY STATE COMPARISON OF MANAGEMENT STRATEGIES

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Indicated management actions by the State Wildlife Agency (SWA) are for those lands where Federal Endangered Species Act listing does not preempt SWA authority.

Row	Element/State	Montana	Idaho	Wyoming	Oregon	Washington	California
1	Federal Listing Status	Not listed	Not listed	Not listed	Endangered in western 2/3 of the state. Unlisted in eastern Oregon (east of Hwys 395/78/95)	Endangered in western 2/3 of the state. Unlisted in eastern Washington	Endangered
2	State Listing Status	Designated as a "Species in need of Management"	Designated as a big game species	Trophy game animal in NW part of State. Predatory animal in balance of State (some seasonal overlap exists)	Special Status Game Mammal and Endangered Oregon Plan divides state into eastern and western management zones defined by Hwys 97/20/395	Endangered	Nongame mammal CESA Candidate
3	Approximate Wolf Population Size (Jan 1, 2013)	625 (minimum) with ≥ 147 packs 37 breeding pairs. ⁱ	Estimated at 683 with ≥ 117 packs ⁱⁱ 35 breeding pairs.	277 (minimum) with ≥ 43 packs Breeding pairs: Yellowstone NP = 6 Balance of state = 15	46 (minimum) in 6 known packs. 6 breeding pairs.	51 (minimum) in 9 known packs. Estimated population is 101 wolves. 5 breeding pairs.	One animal No packs
4	State wolf population objectives	Minimum Objectives: Population : 150 Breeding Pairs: 15	Minimum Objectives: Population: 150 Breeding Pairs: 15	Minimum Objectives: Yellowstone NP and Wind R. Reservation : Population: 50 Breeding Pairs: 5 Balance of	Phase 1 – Conservation Population Objective: 4 breeding pairs for three consecutive years years in both E. and W. Oregon. Phase II - Management	Established 3 recovery regions (RR). Reclassify to Threatened: 2 breeding pairs in each RR for 3 consecutive years. Reclassify to Sensitive:	TBD

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Row	Element/State	Montana	Idaho	Wyoming	Oregon	Washington	California
				State: Population: 100 Breeding Pairs: 10 ⁱⁱ	Population Objective (delisted) 7 breeding pairs for three consecutive years in both E. and W. Oregon Phase III – maintenance objective: TBD ^{iv}	4 breeding pairs in each RR for 3 consecutive years. Delist: 4 breeding pairs in each RR for 3 consecutive years, and 3 more breeding pairs anywhere. ^v	
5	Is there a State managed livestock depredation compensation Program?	Yes. Through the Montana Livestock Loss Reduction and Mitigation Board.	No. Program is postponed indefinitely for lack of funding	Yes, in NW part of the State. No compensation in the Predatory Animal Area. Compensation when depredation of cattle is confirmed is for missing animals up to a 7:1 ratio. <u>-Verified claims are typically submitted in the fall after livestock come off of allotments and missing animals can be</u>	Yes. Two components. A Wolf Depredation Tax Credit also exists (requires ODFW or peace officer ^{vi} confirmation of depredation). OR Dept. of Agriculture administers depredation compensation and financial assistance grant program through the counties.	Yes. Managed by WDFW. Compensation for “confirmed” is full value. Compensation for probable is %50 value. Double compensation for properties >100 acres. Caps of \$200 for sheep, \$1500 for horse/cattle. Total cap of \$10K. Can be appealed. 3 rd party appraisal is compared with the submitted claim.	TBD

Comment [MS1]: A question remains about the procedure and cost of a 3rd party appraisal.

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Row	Element/State	Montana	Idaho	Wyoming	Oregon	Washington	California
				determined			
6	Is there a state managed program for non-lethal proactive measures to reduce depredation?	Yes. Through Loss Prevention grants by MY Livestock Loss Reduction and Mitigation Board. State funding appears to be a limitation.	No. USDA provides this service when requested by livestock producer.	Rarely requested. The Wyoming Animal Damage Management Board considers and provides funds for animal damage management which may include non-lethal methods	OR Dept. of Agriculture administers depredation compensation and financial assistance grant program through the counties. Also see row 17	Yes. SWA enters into Damage Prevention Cooperative Agreements with livestock producers. Producer can receive up to \$10K in State cost-share for implementation. Annual agreement.	
7	Is lethal take of wolves by private parties while wolf is "in the act" of depredating on livestock allowed?	Yes (actual biting, wounding or grasping livestock or domestic dogs).	Yes. Molesting or attacking livestock or domestic animals. See Idaho Code 36-1107(c)	Allowed statewide	In Phase 1 and II. Yes, by landowners, lawful occupants (or authorized agents) on their property if biting, wounding or killing livestock or domestic dogs. Landowners, lawful occupants or authorized agents may also take wolves chasing livestock in designated area of chronic depredation ^{vii}	Yes, by owners of domestic animals (or the owner's agents) on private property. ^{viii}	TBD

February 11, 2014. draft for consideration by the California wolf-livestock interactions subgroup of the California Stakeholder Working Group

Row	Element/State	Montana	Idaho	Wyoming	Oregon	Washington	California
8	Are wolf lethal take permits issued to private individuals?	Yes	Yes	Yes	No in Phase I. Yes in Phase II.	Yes, after non-lethal measures have been implemented without success. ^{ix}	TBD
9	Does SWA notify landowners of wolf presence?	Rarely	Limited to active den or rendezvous sites.	No	Yes	Yes	TBD
10	Are non-lethal control measures required before SWA permits lethal take of wolves?	No	No	No	Yes. "Qualifying event determination" requires implementation of deterrence measures	Yes	TBD
11	Which entity is responsible for investigating and confirming livestock depredation?	USDA Wildlife Services	USDA Wildlife Services	Primarily SWA in NW Wyoming but sometimes USDA Wildlife Services. USDA Wildlife Services- in balance of state, if done at all.	SWA (east of Hwys 395-78-95). USFWS, USDA Wildlife Services or ODFW in western Oregon. ^x	SWA lead with support from USDA Wildlife Services or USFWS	TBD
12	Does SWA develop wolf-livestock conflict deterrence plans?	No	No	No	Wolf-Livestock Conflict Deterrence Plans are prepared in a designated "Area of Depredating Wolves". ^{xi}	SWA enters into Damage Prevention Cooperative Agreements with landowners	TBD

Comment [MS2]: Question: Is depredation outside a AKWA eligible for a "qualifying event" determination?

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Row	Element/State	Montana	Idaho	Wyoming	Oregon	Washington	California
13	Is non-injurious harassment of wolves by landowners allowed?	Allowed – no permit required	Allowed – no permit required	Allowed – no permit required	Allowed – no permit required	Allowed – no permit required	TBD
14	Is non-lethal injurious harassment of wolves by landowners allowed?	Allowed – no permit required	Allowed – no permit required	Allowed – no permit required	Allowed with a permit	Allowed with a permit	TBD
15	Does SWA relocate wolves depredating livestock or domestic animals?	No	No	No	No	On a case by case basis	TBD
16	Is translocation part of the management strategy?	No	No	No	Yes	Yes	TBD
17	Does SWA provide technical support for non-lethal control methods?	Yes	Yes	Rarely requested. Provided through Wyoming Animal Damage Management Board or local Predator Management District	Yes. Provides advice and some resources (e.g. flady, RAG boxes. Also see row 12	Yes. SWA enters into Damage Prevention Cooperative Agreements with livestock producers. Producer can receive up to \$10K in State cost-share for implementat	TBD

February 11, 2014. draft for consideration by the California wolf-livestock interactions subgroup of the California Stakeholder Working Group

Row	Element/State	Montana	Idaho	Wyoming	Oregon	Washington	California
						ion. Annual agreement. ^{xii}	
18	SWA budget for wolf management	State law mandates \$900K/year. Current year (approximate) \$425 from wolf tag sales, \$325 Federal, and \$120K PR funds. 2014 Budget Personnel: \$467K Operating: \$325,482 USDA WS: \$110K^{xiii}	FY 2014 \$1.2 M total. Federal contribution was \$380 K this year	Personnel: \$100K Contract staff: \$70K Operating: \$175K Compensation: \$70-170K ^{xiv}	Current annual expenditures: Personnel: \$220K Operating: \$125K Research: \$220K Mostly Federal funds with State match. ^{xv}	Current annual expenditures: Personnel: \$501K Operating: ^{xvi} \$130K Outreach: \$41K USDA WS: ^{xvii} \$75K Depredation Compensation: \$150K Mostly State funds ^{xviii}	Current - Zero
19	Federal money spent by SWA's on wolves in 2012 ^{xix}	\$685,402	\$532,686	\$52,694	\$218,746	\$212,814	
20	Federal money spent by other entities on wolves in 2012 ^{xx}	USDA WS \$216,232	USDA WS \$397,000 Nez Perce Tribe \$217,500	USDA WS \$207,024 Grand Teton NP \$60,000 Yellowstone NP \$202,500	USDA WS \$26,502 ^{xxi}	USDA WS \$5,397 Colville Tribe \$75,000	

ⁱ A breeding pair is ≥1 adult male and ≥1 adult female in a pack producing ≥2 pups that survived through December 31.

ⁱⁱ Idaho determines a pack based on four animals using a defined home range, other states use a threshold of two animals

ⁱⁱⁱ In Wyoming, the State and Yellowstone NP are separately responsible for meeting their respective population and pack objectives.

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^{iv} If delisted based on meeting the standard in the eastern part of the State, wolves in western Oregon will be managed as if they were listed until the western Oregon wolf population reaches four breeding pairs.

^v Washington has established an alternative set of objective for delisting from state sensitive, which is met by 4 breeding pairs in each of the three recovery regions and 6 additional breeding pairs anywhere in the state. Under the alternative delisting criteria, the 3 consecutive year criterion is not required.

^{vi} To date, no Sheriff has made this confirmation. However, without ODFW confirmation it is not a qualifying event and there can be no compensation.

^{vii} [ORS 498-012](#)

^{viii} [WAC 232-36-051 and 232-36-052](#)

^{ix} Source: Personal communication with WDFW 01092014

^x County Sheriff may be a first responder but has no role in making determinations. [ODFW must make determination for tac credit or compensation.](#)

^{xi} Ranchers may implement all, some or none of the plan. However, without implementation of deterrent methods consistent with the plan, confirmed depredation is not a qualifying incident [which counts toward lethal control.](#)

^{xii} Currently 30 in effect.

^{xiii} [Personal communication with George Pauley, Montana FWP 02102014](#)

^{xiv} Personal communication with Ken Mills, WGFD. 01302014

^{xv} Personal communication with Russ Morgan, ODFW. 01162014

^{xvi} Includes some non-lethal deterrent components

^{xvii} Includes on-call for lethal and non-lethal implementation and staff person for non-lethal deterrent implementation

^{xviii} Personal communication with Stephanie Simek, WDFW 01242014

^{xix} Source: Northern Rocky Mountain Wolf Recovery Program 2012 Interagency Annual Report

^{xx} Source: Northern Rocky Mountain Wolf Recovery Program 2012 Interagency Annual Report

^{xxi} Expenditures reported by USDA Wildlife Services in responding to wolf related issues

APPENDIX E

**DRAFT OVERVIEW OF LESSONS LEARNED FROM THE WESTERN
UNITED STATES REGARDING WOLF-LIVESTOCK INTERACTIONS
(February 11, 2014 VERSION)**

California Department of Fish and Wildlife

Draft overview of lessons learned from the western United States¹ regarding wolf-livestock interactions
February 11, 2014

1. Where wolves and livestock are sympatric, depredation by wolves on livestock has been a consistent result.
2. Where wolves and livestock are sympatric, not all wolves and wolf packs, attempt to kill, or kill livestock. For example, in 2010, Montana reported that an average of 35% of packs were confirmed to depredate livestock. In 2012, the Fish and Wildlife Service estimates that approximately 28% of known wolf packs (in the northern Rocky Mountains Distinct Population Segment) were involved in at least 1 confirmed livestock depredation.
3. When characterizing the severity of wolf impacts on livestock, geographic scale for the analysis, context (e.g. grazing practices and landscape conditions) and mechanism (i.e. lethal or non-lethal) of effect are important.
 - a. Depredation by wolves on livestock is a very small fraction (i.e. <1%) of livestock mortality from all causes when analyzed at a statewide scale.
 - b. Depredation by wolves on livestock is a very small fraction (i.e. <5%) of the overall depredation mortality by wildlife (e.g. coyotes, bears, lions) on livestock when analyzed at a statewide scale.
 - c. Depredation mortality by wolves on livestock can be significant for individual livestock producers.
 - d. Sub-lethal effects of wolf presence, harassment and failed attempts to kill livestock can be significant to individual livestock producers.
 - e. Sub-lethal effects can include reduced weights of livestock caused by increased vigilance, reduced foraging, increased physical activity, reduced reproduction; and non-lethal wounds.
 - f. Impacts to individual livestock producers through management efforts to avoid and minimize depredation by wolves can be important, in terms of time and financial costs.
 - g. Relative risk of depredation varies depending on grazing methods, geographic location, local wolf population, habitat (i.e. topography and vegetation) the extent of previous depredation by local wolf populations and the feasibility of applying non-lethal deterrent methods.
4. Most livestock depredation by wolves is of cattle or sheep.
5. Depredation incidents on cattle generally take 1-2 animals/incident.
6. Depredation incidents by wolves on sheep often result in much larger numbers of dead animals (compared to cattle).

7. Other livestock species, including goats, horses and llamas are rarely killed by wolves (i.e. 3-20/year).
8. Confirmed wolf depredation on dogs has varied between 2 and 25 animals/year for the last ten years.
9. Statistics based on “confirmed” wolf mortalities, through forensic evaluations under-count actual mortality, because:
 - a. Not all dead livestock are found.
 - b. Some dead livestock, when found, are consumed by scavengers to an extent that a conclusive determination of the cause of death is not possible.
10. Reports of wolf predation from livestock producers, including USDA NASS data, include instances where some other cause of death is ultimately determined or the cause of death cannot be determined. For example, the following figure is presented in the 2010 Montana annual wolf report. The geographic context is not provided but the number of incidents suggests it is a multi-state compilation.

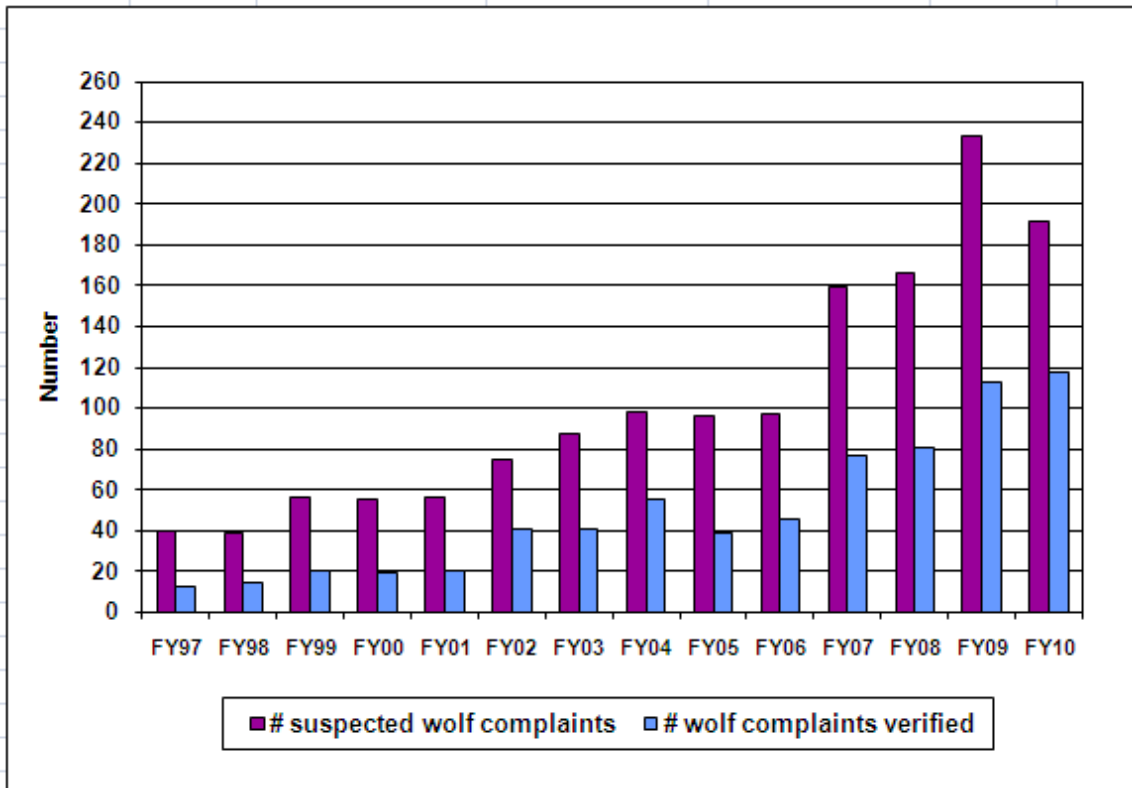


Figure 1. Number of complaints received by USDA Wildlife Services as suspected wolf damage and the percent of complaints verified as wolf damage, federal fiscal years 1997 – 2010. Federal fiscal years from October 1 to September 30.

Data in this table is consistent with an examination of depredation investigations conducted by Oregon Department of Fish and Wildlife, and available at http://www.dfw.state.or.us/Wolves/livestock_loss_investigations_2012.asp. These reports demonstrate that forensic investigations of suspected wolf depredation often determine some other cause of death, or are unable to confirm wolves as the cause of livestock mortality.

11. The relationship between annual wolf population statistics and mortality from all causes can be represented in several different ways. A comprehensive understanding must consider all of these statistics.
 - a. The number of wolves killed in 2012 by hunting, trapping, lethal control and other causes, amounts to approximately 50% of the wolf population known to exist at the beginning of the year (Table 1). However, this method of estimating fractional mortality is insufficient and misleading because it overlooks the fact that wolves are recruited into the population through reproduction and possibly, though to a lesser extent, immigration.
 - b. A relatively more accurate and informative method of understanding the extent of mortality is to determine the total number of wolves known to exist, at any point in a calendar year. For 2012 this is determined by adding the number of wolves known to exist at the end of the year (1682), to the number of wolves known to have died, from all causes, during the year (894). That number is 2,576ⁱⁱ. The fractional mortality is then calculated by dividing this total into the known wolf mortality number for the year (i.e. 894/2576). By this method, 34.7% of the wolves known to exist in 2012 died in 2012.
 - c. The minimum known wolf population at the end of 2012 was 5.7% smaller than the minimum known wolf population at the end of 2011.
 - d. Since hunting and trapping began in 2009, the minimum number of documented wolf packs has increased each year.
12. Wolves killed by hunting and trapping may or may not have been involved in livestock depredation.
13. Confirmed depredation by wolves has been stable for cattle but variable for sheep over the past six years (see Table 1).
14. Currently available methods, especially the use of GPS collars, allow lethal control actions on wolves to be focused on individual animals or packs reliably determined to have engaged in livestock depredation.
15. Non-lethal deterrent methods:
 - a. Have successfully reduced wolf depredation on livestock in many applications.

- b. Are not always successful in preventing wolf depredation of livestock.
- c. May become less effective over time as wolves habituate to particular applications
- d. More than one method may be used either concurrently or sequentially.

Table 1. Detailed Data by State for Cattle and Sheep Depredation, Wolf Populations and Wolf Mortalityⁱⁱⁱ

		2007	2008	2009	2010	2011	2012
Cattle depredation	Oregon	0	0	1	8	13	4
	Washington	0	0	0	0	0	7
	Idaho	53	96	75	75	71	73
	Montana	75	77	97	87	74	67
	Wyoming	55	41	20	26	35	44
	Totals	183	214	193	196	193	195
Sheep depredation	Oregon	0	0	28	0	0	8
	Washington	0	0	0	0	0	1
	Idaho	170	218	324	148	121	312
	Montana	27	111	202	64	11	37
	Wyoming	16	26	195	33	30	112
	Totals	213	355	749	245	162	470
Wolves (min # at year end)	Oregon	?	?	14	21	29	46
	Washington	?	?	5	19	27	51
	Idaho	732	846	870	705	746	683
	Montana	422	497	524	566	653	625
	Wyoming	359	302	320	343	328	277
	Totals	1513	1645	1733	1654	1783	1682
Wolf Packs (min # at year end)	Oregon	0	1	2	2	5	6
	Washington	0	1	2	3	5	9
	Idaho ^{iv}	83	88	94	87	101	117
	Montana	73	84	101	108	130	147
	Wyoming	36	42	44	45	48	43
	Totals	192	216	236	245	289	323
# Breeding Pairs	<u>Oregon</u>	<u>?</u>	<u>?</u>	<u>1</u>	<u>2</u>	<u>1</u>	<u>6</u>
	<u>Washington</u>	<u>?</u>	<u>1</u>	<u>1</u>	<u>1</u>	<u>3</u>	<u>5</u>
	<u>Idaho^v</u>	<u>59/43</u>	<u>60/39</u>	<u>65/49</u>	<u>54/46</u>	<u>63/40</u>	<u>66/35</u>
	<u>Montana</u>	<u>39</u>	<u>34</u>	<u>37</u>	<u>35</u>	<u>39</u>	<u>37</u>
	<u>Wyoming^{vi}</u>	<u>14</u>	<u>16</u>	<u>21</u>	<u>19</u>	<u>19</u>	<u>15</u>
	<u>Yellowstone</u>	<u>10</u>	<u>6</u>	<u>6</u>	<u>8</u>	<u>8</u>	<u>6</u>
Average Pack Size^{vii}	Idaho	7.7	8.3	7.8	7.1	6.5	5
	Montana	5.7	6.0	6.0	6.0	≈6.5	≈6.5
	Wyoming ^{viii}	6.9	5.7	7	6.8	6.1	5.5
	Yellowstone	14.2	9.3	7.1	8.3	10.2	10
Agency lethal control wolf mortality	Oregon	0	0	2	0	2	0
	Washington	0	0	0	0	0	7
	Idaho	50	108	93	80	63	73
	Montana	73	110	145	141	64	108

	Wyoming	63	46	31	40	36	43
	Totals	186	264	271	261	165	231
Hunting & trapping wolf mortality	Oregon	0	0	0	0	0	0
	Washington	0	0	0	0	0	0
	Idaho	0	0	134	46	200	329
	Montana	0	0	68	0	121	175
	Wyoming	0	0	0	0	0	66
	Totals	0	0	202	46	321	570
Other known wolf mortality^{ix}	Oregon	1	0	0	1	0	1
	Washington	0	0	0	1	0	2
	Idaho	28	45	45	18	33	23
	Montana	29	51	42	38	31	41
	Wyoming ^x	18	50	19	27	25	26
	Totals	76	146	106	85	89	93

ⁱ For purposes of this information, the western United States includes Wyoming, Montana, Idaho, Oregon and Washington.

ⁱⁱ The 2012 USFWS Annual Report estimates 2,569 but this does not take into account later population revisions.

ⁱⁱⁱ Data sources were USFWS annual interagency reports <http://www.fws.gov/mountain-prairie/species/mammals/wolf/>, annual reports for individual states and updated information available on individual state websites. Where data discrepancies between the USFWS and state reports existed, the most recent state data was used. Such discrepancies were minor. These data reflect confirmed cattle and sheep depredation. Wolf population and mortality data reflect the best efforts of state and federal agencies to document populations which are dynamic and are minimum counts of wolves and wolf packs. There is inherent uncertainty when designating wolves and wolf packs as resident in one state or another when home ranges are near a state line. Dispersing uncollared wolves are difficult to count and detection of all wolves or wolf mortality is impossible. Actual numbers of depredated cattle and sheep, wolf packs and wolves are all likely greater than presented. These data are most useful as indicating trends, rather than absolute numbers.

^{iv} Packs are generally counted when the SWA can document two animals using a defined home range. Idaho uses a threshold of four animals to define a pack, though once a pack is diminished below four animals it may still be counted as a pack

^{v v} Idaho reports the # of wolf packs known to have reproduced as well as the number qualifying as breeding pairs. For Idaho, the data are presented as “# known reproducing packs/# known breeding pairs”

^{vi} The portion of Wyoming outside of Yellowstone NP

^{vii} Estimated by a subset of documented packs where this can be determined with confidence. These are reported as average pack size with no statistical confidence interval. There are wide variations in pack size from 2 – 20+.

^{viii} The portion of Wyoming outside of Yellowstone NP

^{ix} There are several components to this category, including, but not limited to, vehicle road kill, illegal harvest, disease (e.g. mange, parvovirus, distemper), intraspecific aggression, malnutrition and unknown causes.

^x Accounting for mortality in Wyoming is relatively more difficult than other western states because (1) data for Yellowstone NP, the balance of the state, and sometimes the Wind River Reservation, are accounted for separately, (2) Wyoming has a predator management area and in some years this mortality has been included in agency control actions, in other years as “other”, and (3) Yellowstone NP does not report known mortality of pups in the summer and Wyoming presumably does.

APPENDIX F

**WOLF-LIVESTOCK STRATEGY CONCEPTS
CONSERVATION CAUCUS – FEB. 17, 2014**

	Element	CESA Listed – take is prohibitedⁱ	Not CESA listedⁱⁱ
A	Should there be a state managed compensation program?	Yes, open to the idea, but depends on how it's administered: - To qualify for compensation, in areas of known wolf activity, producer must have been using agency-recommended nonlethal, proactive methods and no unnatural attractants present at the time the depredation occurred, unless is first instance in area not known to have wolves. - No compensation for livestock grazed on public lands. - Depredations must be confirmed by CDFW. - 100% of market value for confirmed depredations; 50% for probable. - Phase out over time as nonlethal techniques become more refined & used. - Majority of state's finances should be spent on nonlethal proactive methods, e.g. 1:4 ratio of compensation: nonlethal methods. Looking for input from other states/models.	
B	If yes, which entity should handle claims and payments?	CDFW, or possibly CA Department of Agriculture (would like to learn more about Dept of Ag).	
D	If, yes, how should the program operate?	See (A).	
E	Should the state provide non-lethal deterrent assistance?	Yes	
F	If yes, what types (e.g. advice, financial support, equipment such as fladry)?	Advice, training, loan of equipment. Funding if available or if cost-share agreements can be struck.	
G	OR and WA develop deterrence plans, should CA?	Yes. Suggest team approach: CDFW pairs with NRCS or other trusted partner (but not WS).	
H	Should CFDW inform livestock producers of proximity to collared wolves?	Yes, if they are willingly cooperating in a nonlethal program & if they sign an agreement that they won't share the information beyond their authorized agents & family. Information should be provided in the form of presence in a general sector, not exact location of wolf(ves).	
I	Should non-lethal deterrents be required before lethal take is authorized?	N/A - see (M)	Yes
J	Should non-injurious harassment of wolves be allowed?	Yes	Yes
K	If yes, under what conditions?	Not near known or suspected den sites. Not if wolf is eating or pursuing wild prey.	
L	Should relocation of depredating wolves to another location in California be an option?	No	No
M	Should lethal take be included as part of the	Not an option except by	Only if certain

	strategy?	CDFW. Question: what does "except by CDFW" mean? Under what circumstances can the agency use lethal take?	conditions are met – see (N)
N	If yes, under what conditions or standards should lethal take be authorized?	N/A (?) – see (M)	No lethal take for depredations occurring on public lands. On private land, for agency to consider the use of lethal take, must be after confirmed instances of chronic depredation and after all feasible nonlethal methods have been exhausted yet depredation is continuing. Only the wolf or wolves CDFW reasonably believes is/are responsible for chronic livestock depredation subject to lethal take under above conditions.
O	Which entity should have authority to investigate and confirm livestock depredation?	- Only CDFW. Only qualified biologists. - If federally listed, it will be FWS (&WS)	
P	How should state agency efforts be funded?	Ideas: - Personal license plate, e.g. WA's \$10 added fee goes to wildlife conflict management fund - Non-consumptive wildlife user fee - If wolves are federally listed, should have cost sharing with FWS	

ⁱ Fish and Game Code section 86. "Take" means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.

ⁱⁱ Take regulated under existing law or amended regulations which may modify current procedures

APPENDIX F

**WOLF-LIVESTOCK STRATEGY CONCEPTS
AGRICULTURE CAUCUS – FEB. 17, 2014**

	Element	CESA Listed – take is prohibitedⁱ	Not CESA listedⁱⁱ
A	Should there be a state managed compensation program?	The Livestock working group is not comfortable discussing a compensation fund until the Conservation chapter has been developed, funding is available, and the lethal control parameters have been established.	No
B	If yes, which entity should handle claims and payments?		
D	If, yes, how should the program operate?	Pays for confirmed and missing livestock on Private and Public lands	
E	Should the state provide non-lethal deterrent assistance?	Yes. Voluntary participation.	Yes. Voluntary participation.
F	If yes, what types (e.g. advice, financial support, equipment such as fladry)?	Provide technical information and financial assistance in the form of cost share programs.	Provide technical information and financial assistance in the form of cost share programs.
G	OR and WA develop deterrence plans, should CA?	Develop of a deterrence plan would be voluntary and would not be required in order to have a qualified incident. In order to access	Develop of a deterrence plan would be voluntary and would not be required in order to have a qualified incident. In order to access

		state funds for state provided deterrent assistance, a deterrence plan would be required.	state funds for state provided deterrent assistance, a deterrence plan would be required.
H	Should CFDW inform livestock producers of proximity to collared wolves?	Yes with no conditions attached	Yes with no conditions attached
I	Should non-lethal deterrents be required before lethal take is authorized?	No, unless specific criteria is developed based on grazing conditions	No
J	Should non-injurious harassment of wolves be allowed?	Yes.	Yes.
K	If yes, under what conditions?	When wolves presence is a threat to property.	When wolves presence is a threat to property.
L	Should relocation of depredating wolves to another location in California be an option?	No.	No.
M	Should lethal take be included as part of the strategy?	Not an option under the current statute except by CDFW	Yes
N	If yes, under what conditions or standards should lethal take be authorized?	When confirmed depredation has been observed, DFW should control problem wolves.	When confirmed depredation has been observed and when threatening and/or killing livestock.
O	Which entity should have authority to investigate and confirm livestock	Wildlife Services	Wildlife Services

	depredation?		
P	How should state agency efforts be funded?	Unknown, but preferably through a longer term mechanism that provides certainty	Unknown, but preferably through a longer term mechanism that provides certainty

ⁱ Fish and Game Code section 86. "Take" means hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.

ⁱⁱ Take regulated under existing law or amended regulations which may modify current procedures