

# Meeting Report Wolf-Livestock Stakeholder Subgroup May 20, 2014

CDFW Wildlife Branch Conference Room 1812 9<sup>th</sup> Street, Sacramento, CA 95811



**California Department of Fish and Wildlife** 

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### 1.0 Introduction

On May 20, 2014 the Wolf-Livestock Interactions Subgroup (WLIS) of the California Wolf Stakeholder Working Group (SWG) convened in the Conference Room of the California Department of Fish and Wildlife Branch Office in Sacramento. This was the ninth meeting of the WLIS, which was established to assist the California Department of Fish and Wildlife (CDFW, Department) in developing recommendations on 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.

The primary objective of the meeting was to continue discussion of a proposed Phase 1 Wolf-Livestock Depredation Strategy.

The meeting was attended in person by seven stakeholders and five CDFW staff, with one additional stakeholder attending via conference line. Appendix A provides a list of participants, their affiliations, and their contact information. In addition, one legislative representative attended in person. Appendix B provides that individual's name and comments.

# 3.0 Meeting Outputs

# Introductions and Housekeeping

Members in the room identified themselves for the benefit of the member on the phone. Then Mr. Stopher displayed an agenda containing amendments to the version previously provided to members. The added element was a miscellaneous Item #2, with subelements of the hypothetico-deductive approach, the Mexican Wolf-livestock Coexistence Council, the Victim's Compensation and Government Claims program, and the Wolf-Livestock Interactions chapter.

#### **Miscellaneous**

• The hypothetico-deductive approach was used by Stanford University researcher Dennis Murphy, who founded the Society for Conservation Biology, as a method for making public policy decisions in the absence of some needed information. The

- approach follows the scientific method through the development of a hypothesis, and then looks at available information to determine if it rejects the hypothesis or is consistent with it. This approach as applied in the realm of public policy provides the framework for developing policy for wolf management in California.
- The Mexican Wolf-Livestock Coexistence Council may serve as a model for a depredation compensation program. Their strategic plan for 2014 includes a component for financial support to producers in Mexican wolf country. They foresee providing funding where wolves are present, for conflict avoidance, for depredation compensation, and for communication and outreach. They plan to hire an executive director to raise the funds that will be needed to implement the strategy.
- The Victim's Compensation and Government Claims program's regulations and information for filing claims are readily available on the program's website. They deal with victims of crime and government claims, and should the Department develop a compensation program it will be necessary to align with the regulations already in place for handling such claims.
- Ms. Kovacs updated the group on the status of the Wolf-Livestock chapter. The
  author has incorporated recommendations from stakeholders and internal
  reviewers. The hope is for the chapter to be completed by the end of the week
  (May 30<sup>th</sup> 2014) or early next week (June 2<sup>nd</sup> or 3<sup>rd</sup>), at which time it will be
  provided to the WLIS for further review.

# Comments and Corrections on May 6, 2014 Meeting Report

- On page 4 under the review and discuss the livestock conflict concept it says all
  portions of the document were addressed but I remember us ending on item L,
  and we were asked to send any additional comments we might have
- On page 3, section 2.0, and on page 4, first sentence insert "Phase 1" before "Wolf-Livestock Depredation Strategy"
- Change "preliminary" to "proposed" Phase 1 Wolf-Livestock Depredation Strategy

# Continue Review/Discuss CDFW Livestock Conflict Concept

Next Mr. Stopher explained the concept behind the Phase 1 approach. This was a proposal to develop a strategy for the early years of wolf reestablishment in California. After a period of a maximum of 10 years or the establishment of four successful wolf breeding pairs, the strategy would be revisited. This strategy assumes that the consequences of livestock depredation would be lower during Phase 1 than when wolves become a sustained population. It also assumes that the Department will be better informed toward developing Phase 2, once those Phase 1 triggers are reached, as a

result of our own experiences with wolves in California. At that time, the stakeholders may be reconvened to assist the Department in developing Phase 2. He clarified that this proposed phased approach is specific to strategies for potential wolf-livestock conflict, and not necessarily for overall wolf conservation. In response to requests from some stakeholders that some specified level of livestock depredation also be added as a trigger to revisit the strategy, Mr. Stopher stated he would gather some data from Idaho and Montana on the distributions of wild ungulates and wolf packs, to inform the discussion at the next meeting.

The remainder of the meeting consisted of reviewing changes to the proposed Phase 1 Wolf-Livestock Depredation Strategy document. Major topics of conversation included how potential funds for wolf damage prevention cooperative agreements would be equitably distributed and by which entity; what parameters should dictate informing livestock producers of proximity of collared wolves; under what conditions non-injurious and non-lethal injurious harassment should be allowed, including both spatial and temporal constraints; whether or not training in the use of non-lethal injurious harassment should be required; whether incorporating a state managed compensation fund into the wolf plan would become an underfunded or unfunded mandate; whether an incentive program for private landowners to provide wolf habitat is of interest; what parameters should be incorporated in the operation of a depredation compensation program; and which entity would be best suited for investigating and confirming livestock depredations. Mr. Stopher requested that WLIS members provide him with any additional suggestions for the document by May 30 so that he can consider them with sufficient time before the next meeting.

# **Summary and Wrap-up**

The next meeting is scheduled for June 3 from 11am to 2pm at the CDFW Region 1 Headquarters in Redding.

#### **Action Items**

- Find out where the Mexican Wolf-Livestock Coexistence Council is toward implementing their strategy
- Ms. Flick will provide Mr. Stopher with contact information for the Defenders of Wildlife representative in the Tucson office
- Incorporate WLIS comments in the May 6, 2014 Wolf-Livestock Meeting Report
- Compile some data on the distribution of ungulates and wolf packs in Idaho and Montana

# APPENDIX A WORKSHOP PARTICIPANTS

Name	Affiliation	Email			
Stakeholders					
Noelle Cremers	California Farm Bureau	ncremers@cfbf.com			
Bob Timm	UC Agriculture and Natural Resources	rmtimm@ucanr.edu			
Lesa Eidman	California Woolgrowers Association	lesa@woolgrowers.org			
Pat Griffin	CA Agriculture Commission – Siskiyou Co.	pgriffin@co.siskiyou.ca.us			
Kirk Wilbur	CA Cattlemen's Association	kirk@calcattlemen.org			
Amaroq Weiss	Center for Biological Diversity	aweiss@biologicaldiversity.org			
Lauren Richie	CA Wolf Center	lauren.richie@californiawolfcenter.org			
Pamela Flick	Defenders of Wildlife	pflick@defenders.org			
	California Department of Fish and Wildlife Staff				
Karen Kovacs	Wildlife Program Manager – Region 1	karen.kovacs@wildlife.ca.gov			
Karen Converse	Environmental Scientist – Lands Program	karen.converse@wildlife.ca.gov			
Mark Stopher	Senior Policy Advisor	mark.stopher@wildlife.ca.gov			
Eric Loft	Wildlife Branch Chief	eric.loft@wildlife.ca.gov			
Pete Figura	Environmental Scientist – Region 1	pete.figura@wildlife.ca.gov			

# APPENDIX B PUBLIC PARTICIPANTS AND COMMENTS

Legislative Representatives				
Name	Affiliation	Email		
Catherine Bird	Senator Ted Gaines's Office	catherine.bird@sen.ca.gov		

- Concurred with another stakeholder about having a depredation "trigger" in place during Phase 1 for reconvening the stakeholder working group to reassess wolflivestock depredation strategies.
- With respect to item L in the proposed wolf-livestock depredation strategies document, asked whether a third party option might be possible; i.e. could a different agency be trained to confirm livestock depredations?
- With respect to non-injuriously harassing wolves to "train" them to avoid areas that will be used by cattle in the future, asks why that should not be allowed.

#### APPENDIX C - AGENDA

#### PROPOSED AGENDA

Wolf-Livestock Subgroup 9-12 AM May 20, 2014 1812 Ninth Street, 2<sup>nd</sup> Floor conference room, Sacramento Teleconference Line 888.379.9287, PC 476990

\*Parking on the street (bring lots of quarters) or parking garages on both 10<sup>th</sup> and 11<sup>th</sup> streets between "O" and "P" streets

- 1. Introductions and Housekeeping
- 2. Miscellaneous
  - a. Hypothetico-deductive approach
  - b. Mexican Wolf/Livestock Coexistence Council
  - c. Government Claims
  - d. Wolf-Livestock Chapter
- 3. Comments and corrections on meeting report for May 6, 2014
- 4. Continue Review/discuss CDFW livestock conflict concept
  - Review email string (last dated May 19 from Stopher to Pat Griffin (pdf included)
  - Review Version 1.0 edited May 19, 2014 Phase I Wolf-livestock Depredation Strategy
- 5. Discuss next steps
  - Resolution of questions or tasks generated by previous agenda topic
  - Next meeting June 3, 2014 in Redding what is the goal for the end of that meeting?

Public questions (last ten minutes)

### **APPENDIX D**

# PROPOSED PHASE 1 WOLF-LIVESTOCK DEPREDATION STRATEGY VERSION 1.0 (05-19-2014)

# California Department of Fish and Wildlife Phase I Wolf-livestock Depredation Strategy | Version 1.0 05<u>19</u>052014 DRAFT FOR DISCUSSION WITH MEMBERS OF THE STAKEHOLDER WORKING GROUP

	Element	CA Department of Fish and Wildlife	
Α	Should the state provide non-lethal	Yes	
	deterrent assistance?		
В	If yes, what types	1. Provide technical information (e.g. telephone and email assistance, web access to information, local public meetings).  2. On-site evaluations and meeting with landowners.  3. Focused disclosure of locations for wolves or packs determined previously to have depredated livestock.  3.4. Loan of equipment  4.5. Technical assistance, funding and	Comment [MS1]: Unresolved issues and exter of disclosure. C Bird – public safety, poss criteria o enrolling for notification, determine geographic precision, and wolf proximity to area of interest
		approval for Wolf Damage Prevention Cooperative Agreements.	
С	OR and WA develop deterrence plans,	Yes. Titled as a Wolf Damage Prevention	
	should CA?	1. Implemented in priority counties with confirmed-sympatric distributions of wolves and presence in proximity to livestock depredation  2. Cost share funding up to \$5,000 annually by State for CDFW approved plans 3. Plans are valid for 12 month period from time of approval and may be renewed or amended.  4. CDFW may cap the funds to be allocated by county.	Comment [MS2]: Agreements should include reporting, tied to an on-site evaluation, protect proprietary information  Comment [MS3]: Create and maintain a list of eligible counties or portions of counties  Comment [MS4]: Possible multi-year agreements tied to what they are doing on the ground
D	Potential cooperating entities for development of Wolf Damage Prevention Cooperative Agreements	<ol> <li>USDA Wildlife Services</li> <li>County Agricultural Commissioner</li> <li>Univ. of CA agricultural Cooperative         Extension</li> <li>CDFA</li> <li>USFWS</li> <li>NRCS</li> <li>USDA Farm Services</li> </ol>	Formatted: Font: +Body (Calibri), 12 pt Formatted: Normal, Indent: Left: 0.25", No bullets or numbering

#### California Department of Fish and Wildlife Phase I Wolf-livestock Depredation Strategy Version 1.0 05<u>19</u>052014

### DRAFT FOR DISCUSSION WITH MEMBERS OF THE STAKEHOLDER WORKING GROUP

F	Should CFDW inform livestock producers of proximity to collared wolves?  Should non-injurious harassment of wolves be allowed?	Yes. Focused disclosure of wolf locations for wolves or wolf packs which have previously depredated livestock. Yes.	Comment [MS5]: Keep consistent with above revisions
G H	If yes, under what conditions?  Should non-lethal injurious harassment	When wolves are within 0.25 mile of livestock.  Yes. Under the following conditions:	
	of wolves be allowed (e.g. rubber	While a wolf is in the act of pursuing,	
	bullets, bean bag shells, and paintballs	biting, killing or consuming livestock.	
	and cracker shells)?	2. All injurious harassment of wolves must	Comment [MS6]: Need to assess feasibility and risks
		be reported to CDFW within 24 hours	Comment [MS7]: Consider a permit and training
		Landowner must provide access to	Comment [19137]. Consider a permit and Commis
	Should there be a state managed	CDFW to investigate incident. Yes	
'	compensation program?	res	 Comment [MS8]: Research existing statutes
J	If yes, which entity should handle	Options:	about compensation
	claims and payments?	CA Victim's Compensation and	
		Government Claims Board	
		2. CA Dept. of Food and Agriculture	
		3. CDFW	
K	If, yes, how should the program	Livestock producer must notify CDFW	
	operate?	within 24 hours of discovery of dead	
		livestock	
		Protect the carcass(es) and site and provide access to CDFW to investigate	
		3. File a claim within 3014 days of CDFW	Comment [MS9]: AG 30 days is what's required
	1	determination of confirmed or probable	for eligibility under FSA's livestock indemnity
		wolf depredation	payments.
		4. 100% of fair market value for confirmed	
		5. 50% for probable	
		6. After two confirmed depredation	
		incidents in any twelve month period,	
		future compensation for the affected	
		producer is available only if that	
		producer has an approved Wolf Damage	
	1	Prevention Cooperative Agreement with	
	NA/Initials and the control of the c	CDFW.	
L	Which entity must investigate and confirm livestock depredation?	CDFW	
	comminutestock depredation:		

# California Department of Fish and Wildlife Phase I Wolf-livestock Depredation Strategy Version 1.0 0519052014

#### DRAFT FOR DISCUSSION WITH MEMBERS OF THE STAKEHOLDER WORKING GROUP

М	Should relocation of depredating wolves to another location in California	No.
	be an option?	
N	Should lethal take be included as part	No <sup>iii</sup>
	of the strategy?	
0	If yes, under what conditions or	Not applicable
	standards is lethal take authorized?	
Р	Should non-lethal deterrents be	Not applicable
	required before lethal take is	
	authorized?	
Q	How should state agency efforts be	Unknown.
	funded? <sup>iv</sup>	

<sup>&</sup>lt;sup>i</sup> Fund plans in the chronological order received on a July 1-June 30 fiscal year basis until annual funds are exhausted

- CDFW personnel costs
- CDFW operating expenses (e.g. office space and equipment, vehicles, field equipment, GPS collars, etc.)
- Compensation fund
- Cost share funding for Wolf Damage Prevention Cooperative Agreements
- Research and Resource Assessment

Comment [MS10]: AG DFW or its agents or contractors should be able to lethally control wolves that are depredating livestock regardless of what stage of the plan we're in. WA's plan allows lethal control (contingent on federal listing status) during all stages for wolves involved in repeated livestock depredations. OR plan also allows lethal control during all stages.

Comment [MS11]: AG Develop guidelines for lethal take of wolves involved in livestock

**Comment [MS12]:** AG Develop guidelines for lethal take of wolves involved in livestock depredations.

<sup>&</sup>lt;sup>ii</sup> Process claims in the chronological order received and pay claims on a July 1-June 30 fiscal year basis until annual funds are exhausted.

Not during phase I when wolves are first becoming established in California

iv Funding categories for consideration include:

### APPENDIX E

# EMAIL DISCUSSION AMONG MEMBERS OF THE WLIS AND MR. STOPHER MAY 13 – MAY 14, 2014

From: Stopher, Mark@Wildlife

To: Griffin, Patrick@Siskiyou; "Lesa Eidman - CWGA"; Donlan, Angela@Wildlife; aweiss@biologicaldiversity.org; Loft,

Eric@Wildlife; hansonwcranch@frontier.com; Jennifer Fearing; Justin Oldfield; Converse, Karen@Wildlife; Kirk

<u>Wilbur (kirk@calcattlemen.org)</u>; <u>Kovacs, Karen@Wildlife</u>; <u>lauren.richie@californiawolfcenter.org</u>;

ncremers@CFBF.com; Figura, Pete@Wildlife; PFlick@defenders.org; Robert Timm (rmtimm@ucdavis.edu); Sean

Curtis (modoccfb@frontiernet.net)

Subject: Please review before May 6 wolf-livestock subgroup meeting

**Date:** Wednesday, May 14, 2014 2:14:28 PM

Attachments: Figure 11 AUMs on USFS and BLM allotments.pdf

Figure 10 Grazing Allotments on USFS and BLM lands.pdf

Figure 8 Cattle Density per county.pdf Figure 9 Sheep density per county.pdf

image001.png image002.png

Importance: High

#### Members

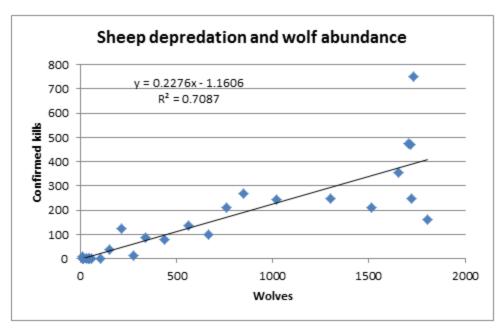
If you have not already, please take time to read Lesa and Pat's email message from earlier this week before we meet next Tuesday. I'll be sending out an agenda on Monday but you can assume my principal intent is to continue the dialogue about a strategy for managing wolf-livestock conflicts. To date I have not received <u>any</u> additional comments on the table we worked from last week. I offer the following for your further consideration:

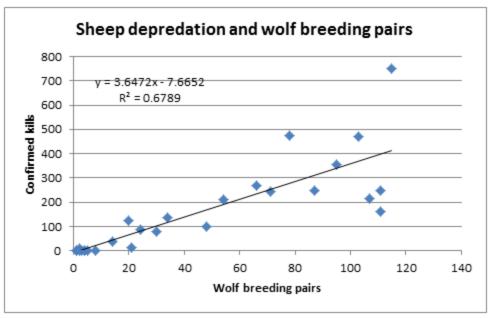
- 1. Points in response to Pat and Lesa's comments
- Please review the four attached draft figures prepared by CDFW to provide insight into grazing in CA.
- As to Pat's point about wild ungulates in Wallowa County and the concern about an equal number of wolves in CA in areas with fewer ungulates, leading to higher depredation on livestock. I do not think it is reasonable to expect equal numbers of wolves in CA with lower numbers of wild ungulates, particularly elk. And I am not aware of any data or examples from western states where the scenario described has occurred. If there is an example it would be useful to have it in front of us.
- Washington and Oregon have fewer sheep than CA. However, sheep grazing in CA is mainly in parts of the state where wolves are not likely to become well established (see Figure 9). Most sheep grazing appears to be far enough south that a newly establishing wolf population will be unlikely to overlap with that distribution. Similar circumstances seem to apply for cattle (see Figure 8). I note however, that grazing allotments on Federal lands, particularly in Modoc and Lassen counties cover very large areas (see Figures 10 and 11) and seasonal grazing intensity appear to be high in some areas. None of the existing data will inform these questions with the degree of precision we might like. We continue to look for better illustrations and data.
- I remain interested in some quantitative understanding of the relationship between the Mexican Wolf Coexistence Council table of compensation values for cattle and sheep and CA values.
- 2. I offer the following information to further illustrate my hypothesis that livestock depredation by wolves during a Phase 1, (again, defined as up to four successful breeding pairs or ten years, whichever occurs first), is likely to be very low. That is, in the single digits annually for cattle, and uneven but low for sheep.

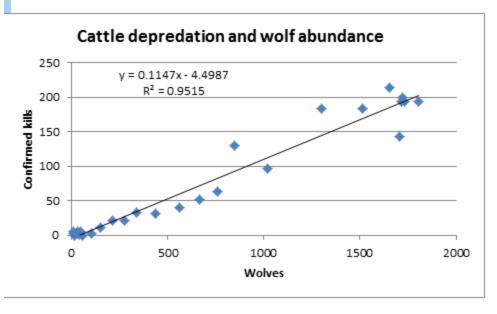
- Please review the model developed for the Washington Wolf Plan on page 84, "Predicting Losses of Ranch Animals in Washington Due to Wolves"
- Note that the model predicts that for a WA population of 50 wolves, confirmed cattle depredation will be 1-6 animals and confirmed sheep depredation will be 7-16 animals. For 2013 the minimum WA wolf population estimate is 51 animals and there were 5 successful breeding pairs. For 2013, confirmed depredation in WA was 1 head of cattle and zero sheep. For 2012, confirmed depredation in WA was 7 head of cattle and I sheep. These data account for the two years in which WA had more than 4 (i.e. 5) successful breeding pairs of wolves and it is worth noting that the model overestimated actual depredation.
- To the point that OR and WA are not case studies that necessarily predict the CA experience with statistical precision, I agree. Neither do ID, WY or MT. However, the data from <u>all</u> of these states <u>consistently point to a very low rate of confirmed depredation, particularly for cattle, when indexed against successful breeding pairs of wolves.</u>
- To illustrate the above point, a simple exercise of taking the 2013 data for ID, MT and WY and dividing the number of successful breeding wolf pairs into the number of confirmed cattle depredations, by state generates the following indices: ID 1.95, MT 1.8 and WY 1.8. OR and WA are lower. This means 1.8-1.9 head of cattle confirmed depredated/year/successful wolf breeding pair, for 2013.
- To address any concern that these numbers are anomalies, I created a small spreadsheet looking at compiled data from 2007 through 2013 (note that the WY data does not include Yellowstone, where there is no livestock grazing)

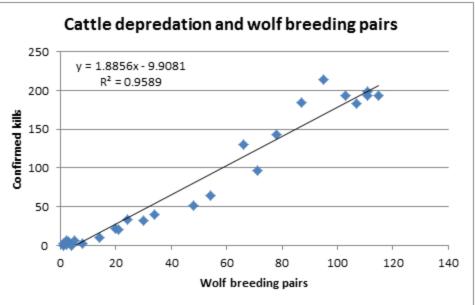
	Successful Wolf	Confirmed		Confirmed	
	Pairs	Cattle	Ratio	Sheep	Ratio
ID	272	482	1.8	1697	6.2
MT	249	527	2.2	476	1.9
WY	127	262	2.1	445	3.5

• Now consider the following graphs which represent 27 years (1987-2013) of data from the Northern Rocky Mountain Distinct Population Segment. Note that for some of those early years there was no depredation by wolves. Recall that wolves first started returning naturally into NW MT and were then reintroduced into Yellowstone and central ID in 1995-96. Low depredation numbers for the first years in no way compromises the statistical usefulness of this date. Pay attention to the R<sup>2</sup> values. A value of 1 means a perfect correlation. For sheep. The R<sup>2</sup> value is about 0.7. That's a very good correlation, not great, which is understandable because of the high variability in the number of sheep killed in different incidents. For cattle, the R<sup>2</sup> is over 0.95. That statistic is compelling. In both cases (i.e. cattle and sheep), confirmed depredation is positively correlated with a high degree of confidence with both wolf numbers and successful breeding pairs.









- In short, <u>all of the available data</u>, and there is a lot of it, supports the hypothesis that a CA wolf population consisting of up to four successful breeding pairs will likely result in confirmed livestock mortality of less than 10 cattle/year. For sheep there is greater variability but even if we assume the highest depredation rate known, i.e. from ID, the projection is less than 25 confirmed sheep depredations/year.
- If you have other data I invite you to share it with the subgroup.

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#### http://www.dfg.ca.gov/

**From:** Patrick Griffin [mailto:pgriffin@co.siskiyou.ca.us]

Sent: Tuesday, May 13, 2014 4:16 PM

To: 'Lesa Eidman - CWGA'; Stopher, Mark@Wildlife; Donlan, Angela@Wildlife;

aweiss@biologicaldiversity.org; Loft, Eric@Wildlife; hansonwcranch@frontier.com; Jennifer Fearing; Justin Oldfield; Converse, Karen@Wildlife; Kirk Wilbur (kirk@calcattlemen.org); Kovacs, Karen@Wildlife;

lauren.richie@californiawolfcenter.org; ncremers@CFBF.com; Figura, Pete@Wildlife;

PFlick@defenders.org; Robert Timm (rmtimm@ucdavis.edu); Sean Curtis (modoccfb@frontiernet.net)

Subject: RE: Follow-up on initial strategy we discussed on May 6

One should also consider the fact that wolves in Oregon and Washington have taken up residence in some of the highest ungulate density areas of each state. I witnessed a herd of about 3,500 head of elk in Wallowa County within the Imnaha pack's territory. That was just one herd. California has no areas with comparable ungulate densities. Wallowa County also has healthy Mule Deer and White tail deer populations. If you place an equal number of wolves in an area with fewer available wild ungulates you need to anticipate higher livestock depredation numbers.

From: Lesa Eidman - CWGA [mailto:lesa@woolgrowers.org]

**Sent:** Tuesday, May 13, 2014 4:08 PM

**To:** Stopher, Mark@Wildlife; Donlan, Angela@Wildlife; <u>aweiss@biologicaldiversity.org</u>; Loft, Eric@Wildlife; <u>hansonwcranch@frontier.com</u>; Jennifer Fearing; Justin Oldfield; Converse,

Karen@Wildlife; Kirk Wilbur (kirk@calcattlemen.org); Kovacs, Karen@Wildlife; lauren.richie@californiawolfcenter.org; ncremers@CFBF.com; Figura, Pete@Wildlife; PFlick@defenders.org; Patrick Griffin; Robert Timm (rmtimm@ucdavis.edu); Sean Curtis

(modoccfb@frontiernet.net)

Subject: Re: Follow-up on initial strategy we discussed on May 6

#### Mark.

The way that livestock are raised and graze in each of these states are somewhat different. Also, the livestock population in each of theses states vary considerably. So, drawing any conclusions from how wolves would interact with livestock in California due to their presence and numbers in others states gets very complicated.

By comparing the losses in Oregon and Washing to those that could potentially occur in California, isn't a statistical representation of potential losses.

For example, California has approximately 668,517 sheep. Oregon: 214,613. Washington: 44,863. As you can see this is a fraction of the # of total sheep that are in California. If you were going to compare the losses from states to state, you would have to add up OR, WA, ID, and MT together to equal the # of sheep that are in California. I didn't calculate this for beef cattle, but I would assume that you would see the population differences amongst the states as well.

I look forward to seeing everyone at the meeting next week.

Thank you, Lesa

Lesa Eidman 18

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**From:** "Stopher, Mark@Wildlife" < <u>Mark.Stopher@wildlife.ca.gov</u>>

**Date:** Tuesday, May 13, 2014 at 11:31 AM

To: "Donlan, Angela@Wildlife" < <a href="mailto:Angela.Donlan@wildlife.ca.gov">Angela@Wildlife.ca.gov</a>>, "aweiss@biologicaldiversity.org"

<aweiss@biologicaldiversity.org>, "Loft, Eric@Wildlife" < <a href="mailto:Eric.Loft@wildlife.ca.gov">Eric.Loft@wildlife.ca.gov</a>>,

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"Robert Timm (<u>rmtimm@ucdavis.edu</u>)" <<u>rmtimm@ucdavis.edu</u>>, Sean Curtis

<modoccfb@frontiernet.net>

Subject: Follow-up on initial strategy we discussed on May 6

#### Members

First, this is a reminder that I asked for any additional comments on the version we discussed by email today. This is not a final opportunity, it merely provides enough time for me to incorporate suggestions in a iteration before we meet next Tuesday.

Second, I proposed a Phase 1 period to last until there are four successful breeding pairs in CA, or for ten years, whichever occurs first. In considering this you might ask what levels of livestock depredation can we anticipate for a wolf population with up to four successful breeding pairs. One answer is that we cannot make a prediction with any particular level of statistical confidence. However, it may be useful to consider the Oregon and Washington experiences, at least for cattle. To date, confirmed depredations in Oregon since there have been four or more successful breeding pairs of wolves have been 4 (in 2012) and 5 (in 2013). For 2010 and 2011 the totals were about twice that high, with fewer successful breeding pairs but with a number of packs that did not successfully raise two pups through December 31.

In Washington the highest year for confirmed cattle depredation was 2012, with seven cattle killed, and 5 successful breeding pairs of wolves. All other years have to date been much lower.

Perhaps the above is useful in considering a livestock strategy during the early years of CA wolf recovery.

I don't know that the same approach is very useful for sheep. With the exception of 2008, sheep depredation in OR and WA has been very low. But since sheep depredation often includes a lot of

dead sheep in one incident it's possible that the correlation between numbers of successful breeding pairs and confirmed sheep depredation is not very high. For OR and WA I don't know whether there is a lot of geographic overlap between sheep and wolves.

Mark Stopher
Senior Policy Advisor
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