

# Conflict on Working Lands – Conservation Innovation Grant (CoW-CIG)



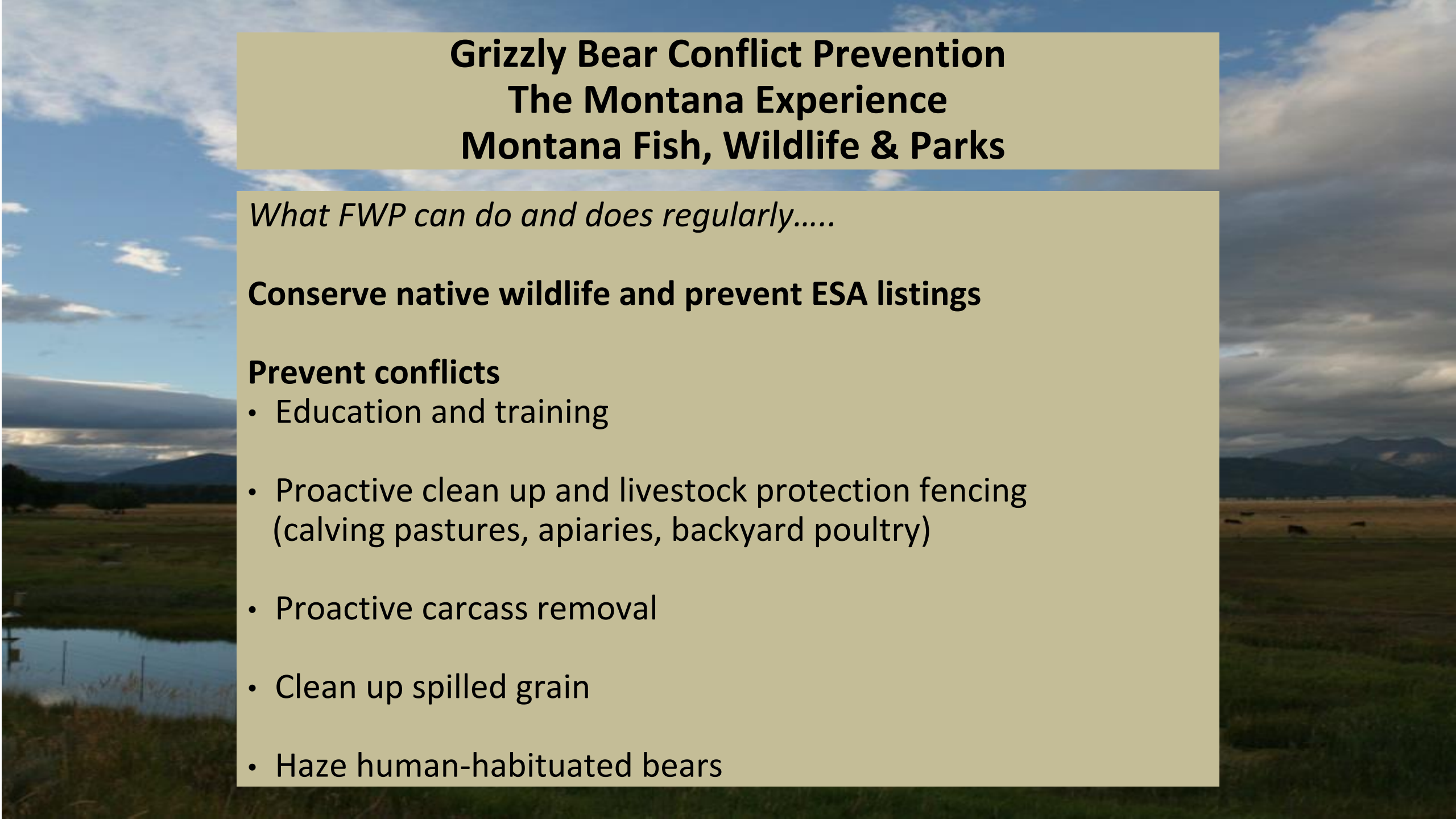
Natural Resources Conservation Service



United States Department of Agriculture



Animal and Plant Health Inspection Service  
Wildlife Services




# **Grizzly Bear Conflict Prevention The Montana Experience Montana Fish, Wildlife & Parks**

*What FWP can do and does regularly.....*

**Conserve native wildlife and prevent ESA listings**

**Prevent conflicts**

- Education and training
- Proactive clean up and livestock protection fencing (calving pastures, apiaries, backyard poultry)
- Proactive carcass removal
- Clean up spilled grain
- Haze human-habituated bears



# Grizzly Bear Conflict Prevention The Montana Experience Montana Fish, Wildlife & Parks

*FWP can do and does regularly....*

## **Respond to conflicts**

- Provide technical assistance
- Provide materials and remove attractants
- Capture and move conflict animals
- Lethally remove repeat offenders

*What FWP can't do.....*

- **Prevent every conflict with proactive measures**
- **Work with unwilling landowners**
- **Force relationships between landowners and NGOs**

# Grizzly Bear Conflict Prevention The Montana Experience – NRCS

- Necessary work based on producer demand
- Blackfoot TIP development
- Range riding, carcass management, and electric fencing



Photos courtesy of Seth Wilson and the Blackfoot Challenge

# Blackfoot Challenge Electric Drive-over Mats



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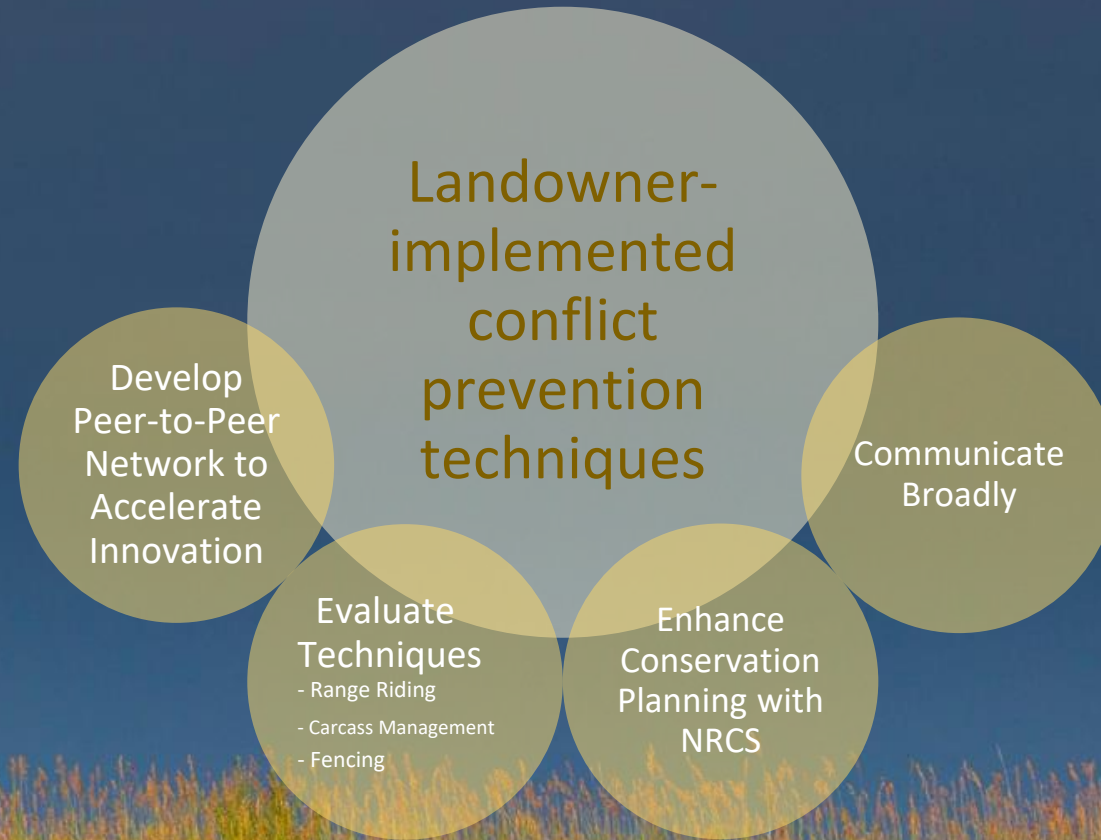
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**The 4Cs:  
A systems-  
based  
framework  
for conflict  
reduction**



# Conflict on Working Lands – Conservation Innovation Grant

**Goal: To advance Technical and Financial Assistance to reduce the financial and social burden to ranch operations caused by predator populations**





August 23, 2022

- Keisha Tatem, Arizona
- Carlos Suarez, California
- Randy Randall, Colorado – Acting
- Curtis Elke, Idaho
- Tom Watson, Montana
- Rigoberto Lopez, New Mexico – Acting
- Suzy Daubert, Nevada
- Ron Alvarado, Oregon
- Emily Fife, Utah
- Roylene Comes At Night, Washington
- Andi Neugebauer, Wyoming – Acting

**.. need for technical and financial assistance to support producer-implemented natural resource and livestock management practices and systems aimed at managing the risks associated with livestock-predator interaction.**

producers operating on western working lands that serve as habitat to express our interest in and need for technical and financial assistance to support producer-implemented natural resource and livestock management practices and systems aimed at managing the risks associated with livestock-predator interaction. Conflict that occurs between agriculture production and certain species of wildlife, such as wolves and grizzlies, can be addressed through the Four C's — a systems-based framework for conflict reduction that supports both livestock production and wildlife conservation, summarized below. We believe that NRCS conservation delivery programs offer a pathway for producer adoption of conflict prevention (non-lethal) practices, as part of this framework.

Through extensive dialogue amongst stakeholders that are rooted in the realities of stewarding rural lands and communities, the Conflict Reduction Consortium developed the Four C's

framework. The framework addresses the ecological, economic and social needs of diverse communities dealing with livestock-predator conflict by means of compensation, conflict prevention (non-lethal), control (lethal) and collaboration.

**We request increased availability of voluntary conservation mechanisms to support non-lethal predator management through NRCS-administered Farm Bill programs...**

management across broad geographic conditions. The interim availability of technical assistance would allow for further review and modification by NRCS based on the technical merit of these strategies. We believe these practices have utility in addressing wildlife habitat, livestock production, and range management resource issues that influence predation risk management.

Landowner-implemented conflict prevention supported through NRCS conservation programs is complementary to and distinct from the role of other state and federal agencies, which provide agency-implemented conflict prevention through technical and operational assistance. To date, the Wolf Livestock Demonstration Grant Program (Tester Fund), with ever increasing demands,

**Landowner-implemented conflict prevention supported through NRCS conservation programs is complementary to and distinct from the role of other state and federal agencies.**

al NRCS field offices to continue wild landscapes.

Sincerely, the undersigned,

[See following pages for signatories]

- CC:
- Robert Bonnie, Under Secretary, FPAC
  - Astor Boozer, Regional Conservationist
  - Danielle Flynn, National Biologist
  - Chris Hamilton, Biologist, West Tech Center
  - Thad Heater, Conservation Outcomes Team
  - Arthur Middleton, Senior Advisor for Wildlife Conservation
  - Clint Evans, Colorado
  - Xavier Montoya, New Mexico
  - James Bauchert, Wyoming



# Arizona

# California

# Colorado

# Idaho

# Massachusetts

# Montana

# New Mexico

# Oklahoma

# Oregon

# Pennsylvania

# Texas

# Utah

# Washington

# Wisconsin

# Wyoming

## California

California Cattlemen's Association  
California Rangeland Conservation Coalition  
California Cattlemen's Foundation  
Lassen County Cattlemen's Association

Andrew Bertotti, Hole-in-One Ranch  
Marty Bidwell, Bidwell Livestock  
Lucy Blake, Lemon Canyon Ranch  
Case Blanken, Ono Ranches  
Kevin Collins, Collins Ranches  
Taylor Hagata, Hagata Ranch  
Jack Hanson, Willow Creek Ranch  
Kristi Jamason, Feather River Land Trust  
Grant Leininger, Leininger Ranch  
Gordon Long, Long Sniper Ranch  
Jessica Oddo, Truax Ranch  
Breanna Owens, Cobblestone Ranch  
Travis Owens, Owens Ranch  
Matthew Rose-Stark, Keystone Land and Livestock  
Darrel Wood, Leavitt Lake Ranches  
Dennis Wood, Wood Cattle Ranch, Inc.  
Trevor Wood, Wood Wood Cattle Co.  
James Harston  
Sharon Harston  
Kathleen Webster  
Anica Wu

## Colorado

Colorado Wool Growers Association  
Upper Arkansas Conservation Districts  
North Park Stockgrowers  
Phillip Anderson, Anderson Ranch  
Brett Axton, Rocky Mountain Roosters  
Abby Bramwell, Spear U Ranches  
Kyle Bramwell, Spear U Ranches  
Darla Bramwell, Spear U Ranches  
Ronald Campbell, Rocky Mountain Sheep  
Barry Castagnasso, 105 Ranch/Sweetwater Clydesdales  
Renee Deal, Sperry Livestock  
Merrilee Ellis, Cobblestone Ranch  
Ben Garcia, Hideaway Ranch  
Craig Greager, Layton Ranch  
David and Marcy Gruber, Moriah Ranch  
Jim Johnson, Elk Glen Ranch  
Lenny Klinglesmith, Klinglesmith Ranch  
Terri Lamers, Snyder Ranch  
Lauren Lees, Western States Ranches  
Bill Lieb, RMR  
Melissa Makous, The Makous Ranch  
Andrew Maneotis, Maneotis Ranch  
Cindy Mangus, SH Ranch  
Madison Everrett Martinez, V Bar X Ranch  
Dallas May, May Ranch  
Keri Off, Off Family Ranch  
Sam and Cheri Robinson, Robinson Sheep Ranch  
Philip Rossi, Hart Mountain Ranch  
Delbert and Lynne Sherrod, Rocking U 7 Ranch  
Alex Sokolik, Golden Pyr Ranch  
Sarajane Snowden, Snowden Ranches  
Jo Stanko, Stanko Ranch

## Idaho

Sarah Michael, Wood River Wolf Project  
Tom Paue, Big Creek Ranch  
Elizabeth Lili Simpson  
Rachel Lohof Larsen  
James Steele

## Montana

Montana Stockgrowers  
Southwest Montana Stockgrowers

Madison Valley Ranchlands Group  
Rocky Mountain Front Ranchlands Group

Trina Jo Bradley, Bradley Ranch  
Bryan Dolezal, Dolezal Ranch, LLC

Colleen Gustafson, Triangle Land and Livestock Co.  
Clyde and Nancy Gustafson, Gustafson Ranch

Justin and Tammi Michels, Michels Mountain Sheep  
M. and M. Michels, Michels Mountain Sheep

Michael and Pamela Swanson, Apex Angus  
Pamela Swanson, Apex Angus

Faith Conroy  
Sean Gerrity

Ada Smith

# California Cattlemen's Association

# California Cattlemen's Foundation

# Colorado Wool Growers Association

# Idaho Cattlemen's Association

# Montana Stockgrowers

# Montana Farm Bureau Federation

# Oregon Cattlemen's Association

# Washington State Sheep Producers

# Wyoming Stock Growers Association

# Wyoming Wool Growers Association

## New Mexico

Joel H. Bernstein, 262 Ranch  
Sydney Franz, K&C Boer X Goats, Turner Ranch  
Steve Gooding, Chromo Mountain Ranch  
Ben Finch, H Bar V Ranch  
Carson Lee, H Bar V Ranch  
Dale Lee, Y Canyon Ranch  
Armando Orona, Red Cone Ranch  
John Richardson, Double Spring Ranch  
Chance Rogers, T Bar Ranch  
Laura Schneberger, Rafter Spear Ranch  
Nelson Shirley, Spur Lake Cattle Co.  
Blake Steward, Broken Butt Ranch/Sunset Ranch  
Sally Trigg, Trigg Cattle Company  
Danielle Shattuck

## Massachusetts

Mark Roberts

## Oklahoma

Brittany Williams

## Pennsylvania

Joy Wilson

## Oregon

Oregon Cattlemen's Association  
Tom and Kelly Birkmaier, Birkmaier Ranch  
Randy Carmony, Cedar Creek Ranch  
Mark and Ellie Gage, Mark Gage Equine Services  
Cameron Krebs, Krebs Livestock  
Shelby Krebs, Eleven-Seventeen Livestock, LLC  
Becky Lukens, Pine Meadow Ranch  
Reese Mercer, Beaver Works  
Todd Nash, T N Ranch  
Ana Varas, Pine Meadow Ranch  
Pamela Wavrin, Pine Meadow Ranch

## Texas

Bill Costanzo

## Utah

Scott Stubbs, Scott Stubbs Livestock  
Dirk Lamoreaux

## Wisconsin

Michael Hundt, David Hundt Farm

## Washington

Washington State Sheep Producers  
Northeast Washington Wolf Cattle Collaborative  
Carrie Fink, Fink Cattle Co.  
Liz Stenning, Skookum Creek Ranch  
Jill Swannack DVM, Feustel Farms, Inc.  
Mark Martinez

## Wyoming

Wyoming Stock Growers Association  
Wyoming Wool Growers Association  
East Yellowstone Collaborative  
Pete Arambel, Midland Ranch  
Curt Bales, TE Ranch  
Dudley Case, Hillcrest Village  
Haley Clark and Jeannie Lockwood, Murdock Land and Livestock  
Scott Cotton, B Heart Land and Livestock  
Bob Curtis, J Bar 9, LLC  
Mary Anne Dingus, TE Ranch  
Carol and Richard Hamilton, Hamilton Ranches  
Greg Hertel, Hertel Mesa Ranch  
Drew Hutchison, Hutchison Fork Ranch  
Josh Longwell, H D Ranch  
Tiffany Manion, J Bar 9, LLC  
Barbara Marks, Marks WY Bar Ranch/LWJ Ranch  
Deborah Meeks, Meeks Quarter Horses  
Kathleen Merrill, JE Ranch  
Alicia Rux, Rux Creek Livestock  
Albert Sommers, Sommers Ranch  
Mary Thoman, W & M Thoman Ranches  
Cat Urbigkit, Paradise Sheep Company  
Jimmy Wiser, Wiser Ranch  
Laura Bell, East Yellowstone Collaborative  
Dana Bonham  
Carolina Noya

# Project Update

- CIG Project Overview
- Resource concern
- Provided input to Montana NRCS's submitted interim practice standard that is currently being reviewed
  - collected and provided cost information for interim practice
- Project partners are compiling information that will provide NRCS with conservation planning tools and help guide strategic implementation



# CIG Research



*Fencing*



*Carcass Management*



*Range Riding*



# CIG Research: What We Know and Current Research

## FENCING

### *What We Know*

- Electric fencing is effective for small projects.
- Fladry and Electrified Fladry are effective for small areas (< 40 acres) and only for wolves and coyotes.
- Permanent fencing is highly effective but used primarily in the Midwest on small farms.
- There are important barriers for implementation (e.g., cost and maintenance).

### *Current Research*

- Fencing survey to livestock producers:
  - measure producer-perceived efficacy
  - Identifying gaps of knowledge
  - Better understand diversity of fencing use:
    - Operation
    - Topography
    - Geography
  - [https://colostate.az1.qualtrics.com/jfe/form/SV\\_3lqh9zyUSjuG7Xg](https://colostate.az1.qualtrics.com/jfe/form/SV_3lqh9zyUSjuG7Xg)
  - Contact Mathew Hyde: Matthew.Hyde@colostate.edu
- Identify designs that improve fence efficacy

# CIG Research: What We Know and Current Research

## CARCASS MANAGEMENT

### *What We Know*

- Bone piles are major attractants for carnivores.
- Livestock near bone piles are exposed to greater predation risk.
- Greater risk of removing carnivores for conflict management.
- Removal of bone piles benefits:
  - Livestock Producers
  - Carnivores
  - Additional wildlife benefits (e.g., ravens)

### *Current Research*

- Elaborating carcass management:
  - Bone pile elimination
  - Carcasses as supplemental food to reduce conflict
  - Carcasses on remote allotments
- Active work across 4 states (AZ, NM, OR, MT):
  - Spatial ecology of carnivores
  - Patterns of conflict

# CIG Research: What We Know and Current Research

## RANGE RIDING

### *What We Know*

- Provides adaptive human presence.
- Useful on open range landscapes.
- Popular with livestock producers:
  - Monitor and measure forage
  - Finding carcasses and sick or injured animals
  - Enhances communication
  - Reduces predation
- Shown to be effective depending on strategy and intensity.

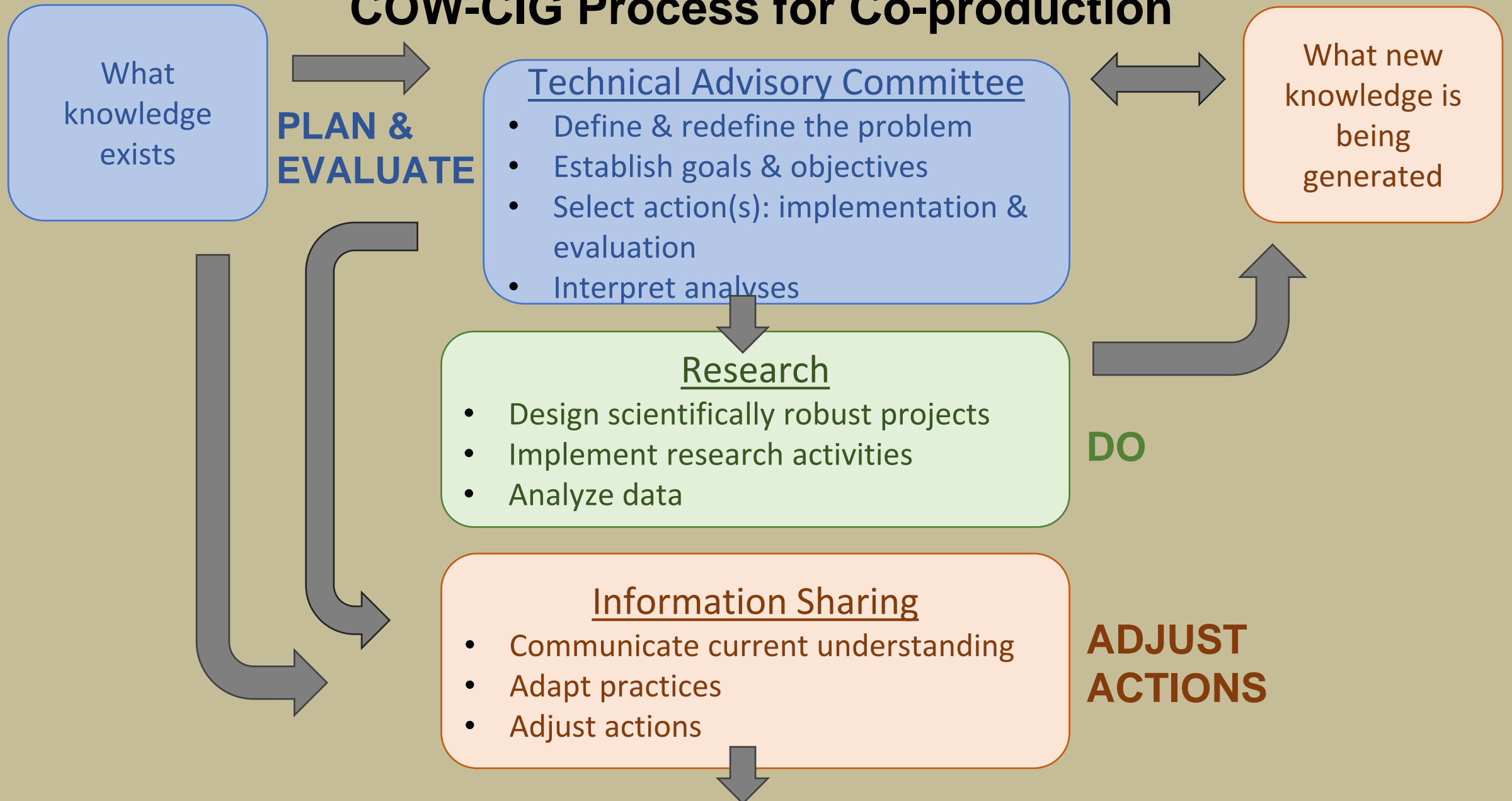
### *Current Research*

- What makes range riding most effective?
- Field sites in 6 western states:
  - Cattle behavior
  - Carnivore occupancy
  - Range rider efficacy
  - Indirect Impacts:
    - Pregnancy rate
    - Weight
    - Hormones
- Range riding survey: interviewing producers to capture complexities of range riding and to better determine what they want as an outcome.

# CIG Research: Partnership and Co-production

- Developing important network of partners
- Co-production example:
  - Hyde, M., S.W. Breck, A. Few, J. Beaver, J. Schrecengost, J. Stone, C. Krebs, R. Talmo, K. Eneas, R. Nickerson, K. Kunkel, and J.K. Young. 2022. Multidisciplinary engagement for fencing research informs efficacy and rancher-to-researcher knowledge exchange. *Frontiers in Conservation Science*.
- Many products in the works—stay tuned.

# COW-CIG Process for Co-production



**Outcome = NRCS Programs Support Conflict Reduction Practices**

# CoW-CIG

## What we've been learning from conservation innovation

- Technical Advisory Committees
- Beyond Conflict gathering
- Pathways to Implementation webinar series
- Co-produced research
- Interim Practice Standard and new Scenarios
- Scenarios with cost information – new components identified
- Tech note development – principles and practices
- Landowner Toolkit

# CoW-CIG

- Advance the availability of a Non-lethal Predation Management Scenarios and Practices for financial and technical assistance through NRCS EQIP contracts.

## **NRCS Conservation Delivery Framework**

“Conservation Plan is a written record of the management decisions you plan to use and maintain on your farm. With advice from the NRCS, you select the best combination of conservation practices to meet both natural resource needs and individual land management goals.”

# Conservation Planning Process

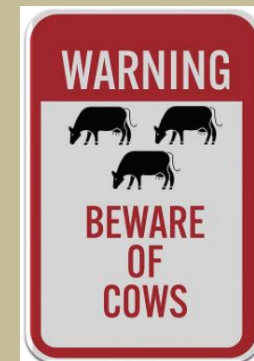


Image credit:  
[nrcs.usda.gov](http://nrcs.usda.gov)

# Factors to Consider

- **Species:** livestock, predators and prey
- **Place:** biotic and abiotic conditions
- **Time:** temporal setting and changes over time
- **Disturbance:** events that influence behavior and ecosystem dynamics
- **Landscape/Land Use:** size, shape, and spatial relationships

These five factors were adapted from Dale et al. 2000. Ecological Principles and Guidelines for Managing the Use of Land, a report of the Ecological Society of America Committee on Land Use



# Species

Type, age class and population density of predators and type and age class of livestock alter the level of risk, as does the abundance and diversity of prey.

- Grizzlies, wolves, and/or other predators
  - each requires unique activities/response
- Livestock type – cattle, sheep, horses, other
- Prey base – elk, deer, other

# Place

Each site or region has a unique set of abiotic and biotic conditions influencing predation risk (e.g., topography, canopy cover/density, water sources, forage availability, climate).

- Terrain - Rough/Rolling/Plain
- Visibility - High/Moderate/Low
- Vegetation community type – timber, shrub, riparian/willow, grassland/meadow

# Time

Conflict or predation risk happens in a temporal setting and changes over time based on habitat use (including annual life-cycle stage) and livestock/grazing management (type of livestock).

- Conflict occurs year round, seasonally, or is variable
- Annual life cycle (wildlife) and production cycle (livestock)
- Time element of other factors (species, disturbance, place, and landscape/land use)

# Disturbance

Events whose effects may strongly influence wildlife populations, behavior, and ecosystem dynamics and therefore impact predation risk (e.g., weather, fire, recreation, lethal control, other land uses)

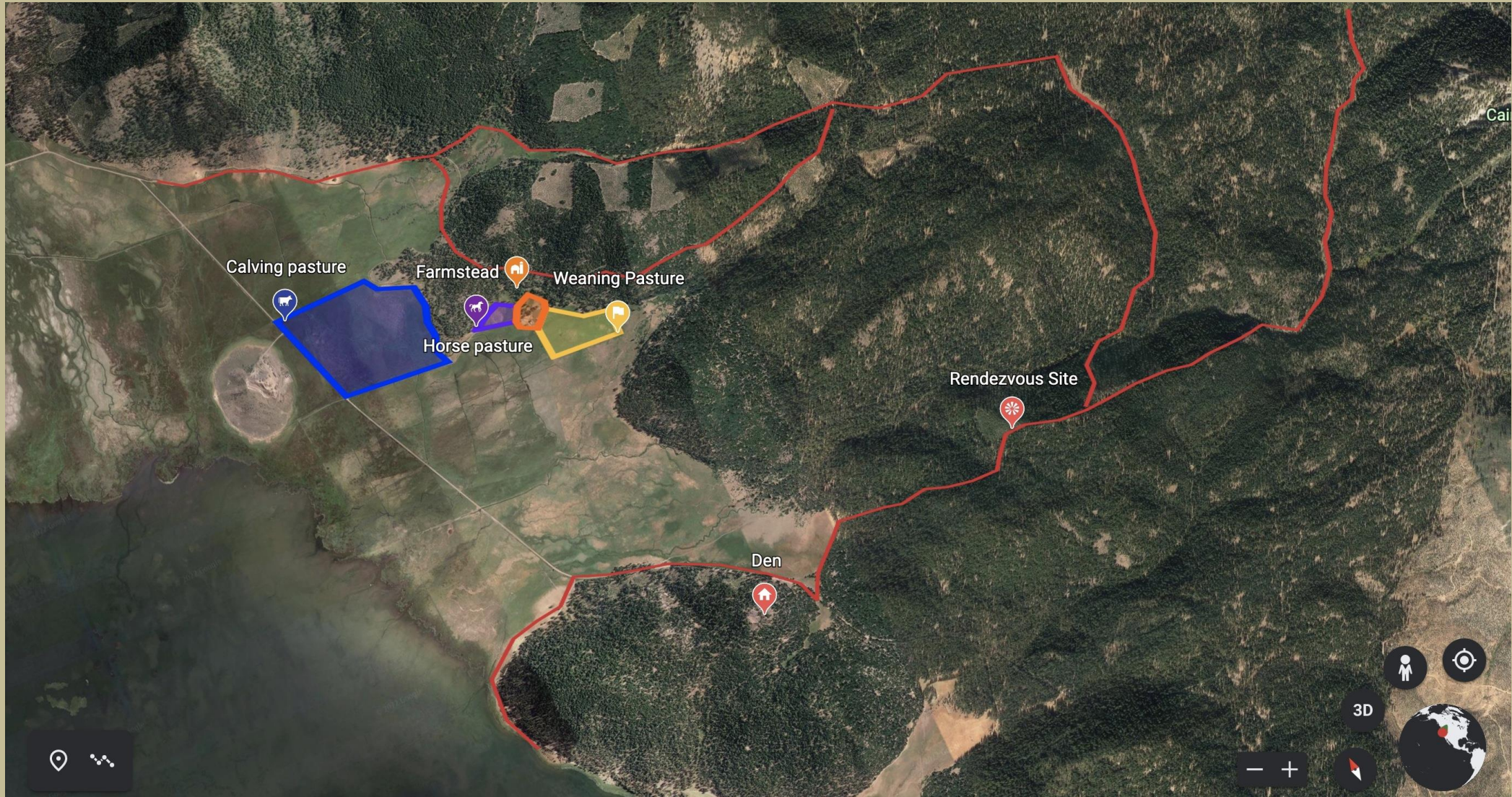
- Seasonal snowpack – heavy/moderate/light
- Recreation use – type, density of use
- Hunting season of elk and deer
- Drought – limiting factors/ resource limitations
- Lethal control – yes/no, hunting, agency managed

# Landscape/Land Use

The size, shape, and spatial relationships of habitat patches and livestock pastures on a ranch or in a region affect ecosystem function, community dynamics and predation risk, along with the ability to implement certain strategies.

- Accessibility
- Acreage (1-500; 501-1000; 1001-5000; 5000+)
- Ownership/management pattern (federal/state/private)
- Management infrastructure (water, fence, handling facilities)
- Stratification – human occupied/intensive use; shared; predator-occupied

**Ranch landscape stratification** - conflict prevention techniques support **localized, spatial and/or temporal separation between predators and livestock** within a **dynamic working-wild landscape**, leading to more permeable habitats that **allow for wildlife movements** within and across **connected, working landscapes**.



# Frequently Asked Questions

## Purpose

- To answer questions that the project team and NRCS staff have been asked as this project has been shared across local, state, and national NRCS offices.
- To have a compiled record of responses to frequently asked questions
- To provide clear information about how NRCS provides a critical role in meeting the needs of landowners experiencing conflict with large carnivores.

# Frequently Asked Questions

- Does this work/assistance fall under other federal agencies scope of work (e.g., USDA-WS or USFWS)?
- Why develop an Interim Practice Standard (IPS), rather than using existing Practice Standards?
- What is the resource concern being addressed?
  
- **How will Technical Assistance be provided given current knowledge of NRCS staff?**
- **Is range riding a practice that is a normal part of typical ranch activity? If so, why would NRCS provide Financial Assistance?**

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