Wolf Restoration and Management Plan for Colorado







Colorado Revised Statute 33-2-105.8

The Commission shall...

- Restore wolves west of the Continental Divide
- Develop methodology for determining when the gray wolf is sustaining itself
- Resolve conflicts with those involved in ranching and farming
- Take steps necessary to begin reintroductions by December 31, 2023

CPW Plan Development Timeline

- Present to Parks and Wildlife
 Commission December 2022
- Meetings in Jan/Feb 2023
 - January 19th Colorado Springs
 - January 25th Gunnison
 - February 7th Rifle
 - February 16th Virtual
 - February 22nd Denver
- February 22 Commission provide direction to staff
- www.wolfengagementco.org







CPW Plan Development Timeline

- 2-step Final Plan Approval and Regulations Process
 - Step 1 April 2023
 - Step 2 May 2023
- Ensures ability to meet statutory deadline of December 31, 2023





Federal Endangered Species Act 10(j) Rule

- Federal process separate from CPW process
- 10(j) rule provides important management flexibility
- Anticipate completion Fall 2023



https://www.fws.gov/media/section-10j-endangered-species-act





Plan Organization by Chapter

- 1. Introduction and Background
- 2. Key Issues for Conservation and Management
- 3. Reintroduction Implementation
- 4. Recovery of Wolves in Colorado
- 5. Wolf Management
- 6. Wolf-Livestock Interactions
- 7. Monitoring, Ungulate Management, Research, and Reporting
- 8. Education, Outreach, and Agency Coordination
- 9. Funding



Chapter 1 – Introduction and Background

Notwithstanding any provision of state law to the contrary, including section 33-2-105.5 (2), and in order to restore gray wolves to the state, the Commission shall:

- (a) Develop a plan to restore and manage gray wolves in Colorado, using the best scientific data available;
- (b) Hold statewide hearings to acquire information to be considered in developing such plan, including scientific, economic, and social considerations pertaining to such restoration;
- (c) Periodically obtain public input to update such plan;
- (d) Take the steps necessary to begin reintroductions of gray wolves by December 31, 2023, only on designated lands.

CRS 33-2-105.8 2(a-d)



Proposition 114



Previous Wolf Planning Effort

FINDINGS AND RECOMMENDATIONS FOR MANAGING WOLVES THAT MIGRATE INTO COLORADO

FROM THE COLORADO WOLF MANAGEMENT WORKING GROUP



Members of the Colorado Wolf Management Working Group at their December 14-15, 2004 meeting in Golden, CO

December 28, 2004



2023 Plan Goal

To identify the steps needed to recover and maintain a viable, self-sustaining wolf population in Colorado, while concurrently working to minimize wolf-related conflicts with domestic animals, other wildlife, and people.

Public Engagement

Summer 2021: 47 meetings plus online comment

- Approximately 3,400 participants
- 16 in-person regional open houses (8 on the West Slope)
- 17 in-person Western
 Colorado geographic focus groups
- 10 virtual interest-based focus groups
- 2 in-person Tribal consultations
- 2 virtual town halls

Ongoing:

- Public comments at Commission & Stakeholder Advisory Group meetings
- Online comment at www.wolfengagementco.org







Advisory Groups







Technical Working Group

- Wolf Restoration Logistics
- Compensation for Wolf Damage to Livestock
- State Listing and Delisting Thresholds
- Wolf Management

Stakeholder Advisory Group

- Restoration Logistics
- Preventative, Nonlethal Wolf Livestock
 Conflict
- Livestock Compensation
- Impact–Based Management
- Ungulate Management Recommendations
- Regulated Public Hunting of Wolves
- Outreach and Education
- Funding



Legal Status

Federally Endangered
 This Plan does not replace a federal recovery plan, nor does it outline federal recovery goals

State Endangered

Any species... whose prospects for survival or recruitment within the state are in jeopardy as determined by the commission

CRS 33-1-102(12)



Chapter 2 – Background and Key Elements for Conservation and Management







Wolves and People







Wolf Recovery







Wolves and Livestock



Wolves and Wildlife









Wolves and Human Safety









Monitoring and Research







Chapter 3 – Reintroduction Implementation

- (a) The Commission's plan must comply with section 33-2-105.7 (2), (3), and (4) and must include:
- (I) The selection of donor populations of gray wolves;
- (II) The places, manner, and scheduling of reintroductions of gray wolves by the division, with such reintroductions being restricted to designated lands;

CRS 33-2-105.8 3(a)(I-II)

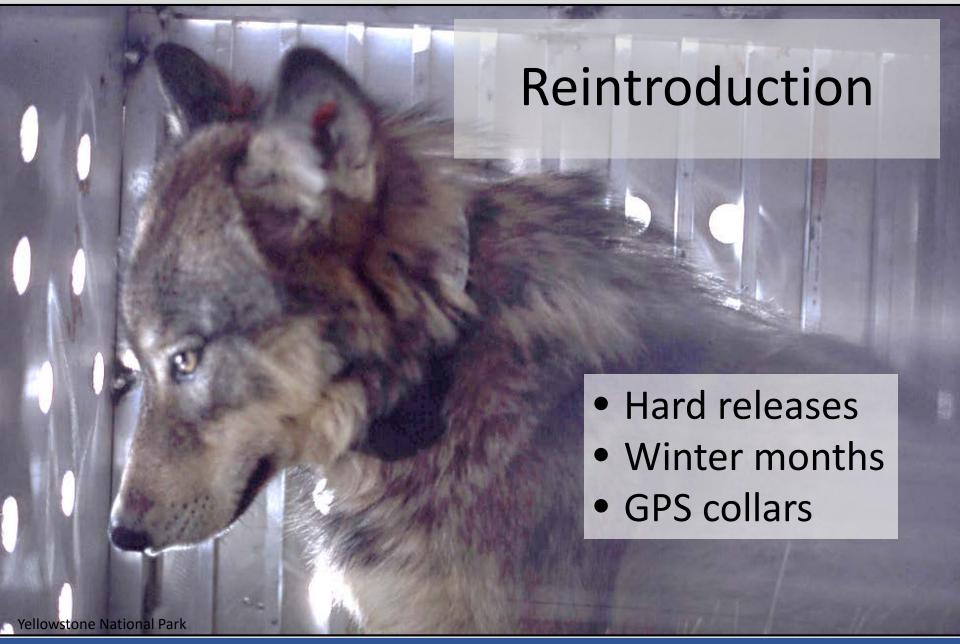


Animal Capture Capture

- 30-50 wolves total
- 3-5 year timeframe
- Northern Rockies states
- 10-15 animals/year

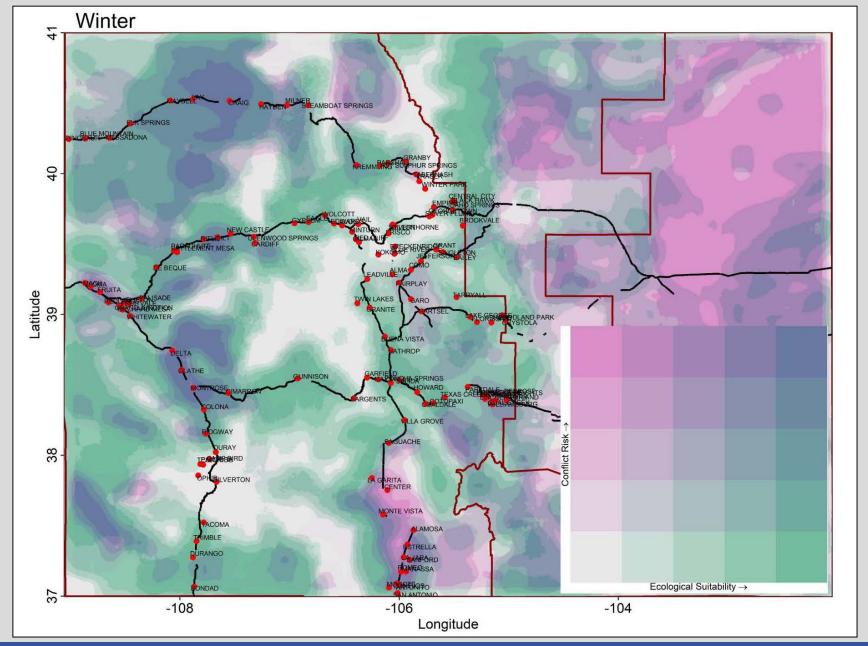






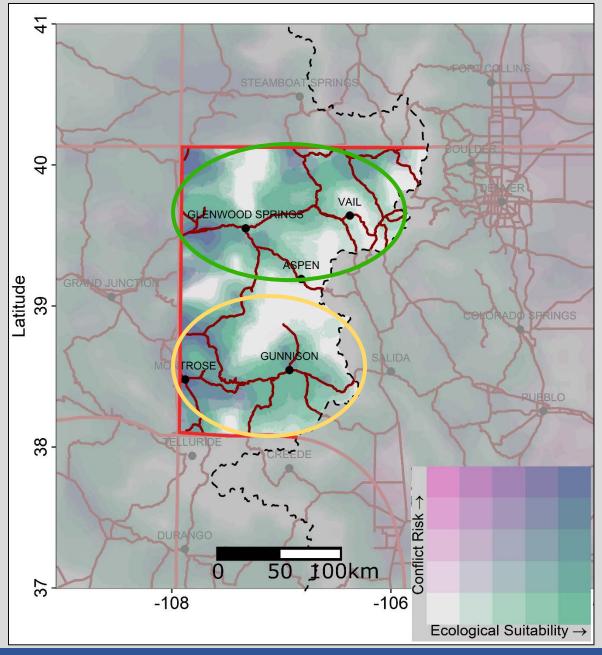
















Chapter 4 — Recovery of Wolves in Colorado

The Commission's plan must comply with section 33-2-105.7 (2), (3), and (4) and must include:

Methodologies for determining when the gray wolf population is sustaining itself successfully and when to remove the gray wolf from the list of endangered or threatened species, as provided for in section 33-2-105 (2).

CRS 33-2-105.8 3(a)(IV)



Phased Approach

- Allows increasing management flexibility as wolf population grows
- Based on mid-winter minimum count

Population metrics should correspond with

state status





Phase 1 – State Endangered

Start: Current situation

Conclude: Minimum count of 50 wolves anywhere in Colorado for 4 successive years

Action upon Conclusion: Downlist to State Threatened



Phase 2 – State Threatened

Start: Minimum count of 50 wolves anywhere in Colorado for 4 successive years

Conclude: Minimum count of 150 wolves anywhere in Colorado for 2 successive years –OR– Minimum count of 200 wolves with no temporal requirement

Action upon Conclusion: State Delisted



Phase 3 – Delisted, Nongame

Start: Phase 1 and 2 conclusion requirements are both met.

Conclude: No prescribed conclusion



Phase 4 – Game Status

Discretionary phase, not prescriptive nor

legally required



Questions from Commissioners





Chapter 5 – Wolf Management

The Commission's plan must comply with section 33-2-105.7 (2), (3), and (4) and must include:

(III) Details for the restoration and management of gray wolves, including actions necessary or beneficial for establishing and maintaining a self-sustaining population, as authorized by section 33-2-104;

CRS 33-2-105.8 3(a)(III)



What is Management?

Actively engaged in activities that assure the long-term welfare of the wolf population and minimize the potential for conflict or resolve conflict where and when it develops





Impact-based Management

"If wolves are causing problems, manage to resolve the problem. When negative impacts occur, they should be addressed on a case-bycase basis utilizing a combination of appropriate management tools, including education, nonlethal conflict minimization, lethal take of wolves, and damage payments..."

Stakeholder Advisory Group Report, Appendix C



Wolf Conflict Management

- Education
- Nonlethal tools
- Lethal tools





Lethal Management

- Socially contentious
- Small scales
- Not a threat to long-term viability
- Technical WorkingGroup support





Impact-based Management

- Basic Premise
- Phases
 - State Endangered
 - State Threatened
 - State Delisted/Nongame
- •3 Scenarios
 - Livestock Interactions
 - Other Wildlife Species Interactions
 - Other Situations



Management Tool

Non-injurious, nonlethal conflict minimization practices by livestock owners or their agents

Opportunistic <u>hazing</u> of any gray wolf in a non-injurious manner is <u>permitted at any time</u>. If a known injury or death occurs, CPW must be notified within 24 hours



Management Tool

Taking of wolves in the act of attacking or chasing livestock

After issuance of a permit, any landowner may immediately take a gray wolf in the act of attacking livestock on their private land or land that they are legally grazing using a federal land-use permit provided the landowner provides evidence of livestock, or stock animals recently (less than 24 hours) wounded harassed or killed by wolves and state or federal agents are able to confirm that the animals were attacked by wolves. The carcass of any wolf taken and the area surrounding it should not be disturbed in order to preserve physical evidence





Management Tool

Agency take of chronically depredating wolves

State or federal <u>agents</u> may carry out <u>hazing</u>, <u>non-lethal</u> <u>control measures</u>, <u>or lethal control of problem wolves</u>. CPW or its designated agents will consider A) evidence of wounded livestock, working dogs, or other animals or remains of livestock that show that the injury or death was caused by wolves, B) the likelihood that additional wolfcaused losses or attacks may occur if no control action is taken, C) evidence of unusual attractants or artificial or intentional feeding of wolves and D) evidence that proper animal husbandry practices are implemented



Management Tool

Agency take to reduce impacts to wild ungulates

Only considered in Phase 3. In considering an appropriate management response to wild ungulate impacts, **CPW will require**:

<u>Data</u> or other information indicating that wolves are a <u>known factor of ungulate herds not meeting objectives</u>.

CPW will consider the following:

- Level and duration of wolf removal necessary to achieve management objectives;
- Ability to measure ungulate response to management actions;
- Identification of other potential major causes of an ungulate population not meeting HMP population objectives and attempts made to address them;
- Decline in ungulate license quotas and hunting opportunities

In employing this management action, wolf removals must not contribute to reducing the wolf population in the state below 150 wolves





Management Tool

Agency take to reduce impacts to other wildlife species

Only considered in Phase 3, with similar considerations as described for wild ungulates



Questions from Commissioners





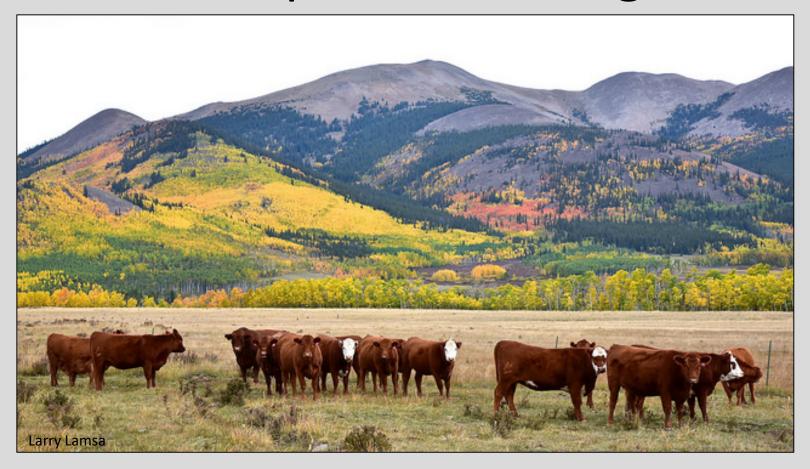


Chapter 6 – Wolf-Livestock Interactions

- (2) Notwithstanding any provision of state law to the contrary, including section 33-2-105.5 (2), and in order to restore gray wolves to the state, the commission shall:
- (e) Oversee gray wolf restoration and management, including the distribution of state funds that are made available to:
 - (I) Assist owners of livestock in preventing and resolving conflicts between gray wolves and livestock; and
 - (II) Pay fair compensation to owners of livestock for any losses of livestock caused by gray wolves, as verified pursuant to the claim procedures authorized by sections 33-3-107 to 33-3-110.

CRS 33-2-105.8 2 (e)(I-II)

CPW Draft Conflict Minimization and Compensation Program

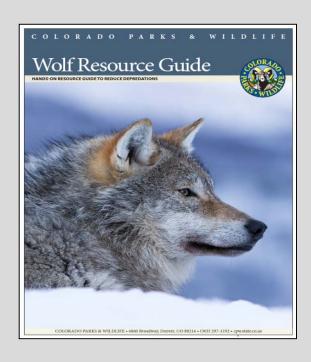






CRS 33-2-105.8 2 (e)(I):

"Assist owners of livestock in preventing and resolving conflicts between gray wolves and livestock."



CPW Conflict Minimization Program

CPW will provide "temporary conflict minimization materials":

- Turbo Fladry: Electrified fencing with flagging (left)
- Scare devices: Shell-crackers, propane cannons & fox lights (middle/right)
- Materials loaned and delivered to livestock owners on a case-by-case basis
- Must comply with state and federal rule/regulation and authorized by USFWS







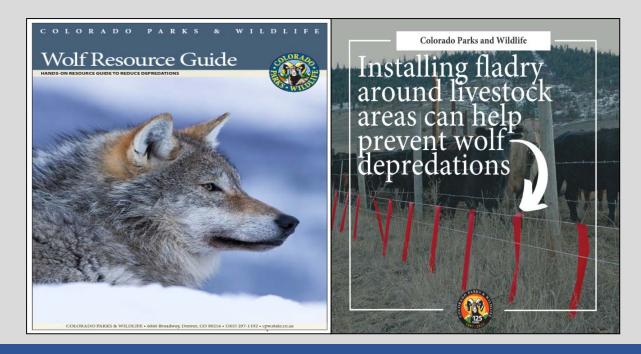
CPW Conflict Minimization Program

CPW will provide conflict minimization <u>outreach/training</u>:

• Conflict minimization techniques identified in CPW's Wolf Resource Guide

CPW hired a Wolf Conflict Coordinator to work directly with livestock owners and

with a variety of groups







CPW Conflict Minimization Program

- Conflict minimization funding separate from compensation funding
- Procedures for providing materials, support and trainings will be established through CPW regulation
- CPW will seek external funding to support outreach/materials
- Coordinate conflict minimization efforts of Governmental Organizations and Non-Governmental Organizations

CRS 33-2-105.8 2 (e)(II):

"Pay <u>fair compensation</u> to owners of livestock for <u>any losses</u> of livestock caused by gray wolves, as verified pursuant to the claim procedures authorized by sections 33-3-107 to 33-3-110."







CPW Compensation Program

Basic Principles:

- Conflict minimization techniques are not required for compensation but are encouraged/incentivized
- Depredation confirmations will be made by CPW and based on a "preponderance of evidence" (PWC W-17, #1740.A)
- Compensation for wolf damages by CPW will be reduced by amount of other financial support
- \$8,000 maximum compensatory limit per head of livestock
- Program recognizes other losses besides the direct loss of an animal



Base Compensation

Confirmed death of livestock (33-2-105.8) & guard/herding animals:

• 100% fair market value (FMV) compensation, up to \$8k per animal

Veterinarian costs for injured livestock or guard/herding animals:

• Up to 100% FMV of the animal, not to exceed \$8k per animal limit

Value Of Livestock and guard/herding animals:

Based on PWC W-17 #1742

 After a confirmed depredation (injury or death) to sheep or cattle, livestock owner can choose between additional options



Base Compensation Examples:

1. CPW confirms that wolves killed a llama:

Compensation = 100% FMV up to \$8000 max cap

2. CPW confirms that wolves killed 10 chickens:

Chickens are not considered livestock under CRS 33-2-105.8

3. A mountain lion hunter's dog is killed by wolves:

Only dogs used for guard/herding are eligible for compensation



Missing Calves/Sheep

Difficulty in locating calf/sheep depredations in a timely in larger open-range settings:

- Wolf feeding behavior, topography and vegetation plays a role
- Wolves are likely to consume smaller carcasses, making it more difficult to locate and confirm depredations

If a confirmed wolf depredation occurs to <u>cattle or sheep</u>, additional compensation options are available.

Compensation Options

1. Basic Compensation Ratio Option:

- Only applies to calves/sheep
- Addresses missing calf/sheep losses, in larger open range settings
- More simplified process

OR:

2. Itemized Production Losses:

- Only applies to cattle/sheep
- Addresses missing calves/sheep, decreased weaning weights, decreased conception rates, additional losses on a case-by-case basis
- Requires additional/specific baseline documentation



Base Compensation 100% Fair Market Value for the type, age and weight of the animal for each confirmed wolf-livestock depredation. In addition to base compensation, livestock owner may seek compensation for missing livestock and/or production losses **Itemized Production Losses Basic Compensation Ratio** What does this option compensate for? What does this option compensate for? -Missing sheep/calves -Missing calves/sheep -Decreased sheep/cattle weight gains -Does NOT apply to other livestock -Decreased sheep/cattle conception rates -Does NOT apply to other livestock Livestock owner must provide specific baseline Implementation of conflict minimization techniques? documentation to prove losses for all of the above. Yes No Up to 7 missing animals can be Up to 5 missing animals can be claimed for each confirmed claimed for each confirmed depredation, not to exceed the depredation, not to exceed the actual number of documented actual number of documented livestock missing. livestock missing.





Option 1: Basic Compensation Ratio

Missing calves/sheep can be claimed if 2 conditions are met:

- 1. Owner must have at least one confirmed cattle/sheep depredation:
 - Missing animals claimed must be from same band/herd/parcel
- 2. Owner must reasonably believe missing livestock was lost to wolves:
 - Number of missing livestock claimed cannot exceed the actual number of livestock missing

CPW will consider the role of topography/vegetation for eligibility.



Option 1: Basic Compensation Ratio

Compensation Ratio:

Number of missing calves/sheep based on # of confirmed depredations:

• Ratio: # eligible missing animals: # confirmed depredations

Two-tiered compensation ratio based on conflict minimization:

- 7:1 ratio IF techniques are implemented
- 5:1 ratio IF techniques are not implemented

Conflict minimization techniques:

Carcass management/other lawful hazing techniques in PWC #1000.A.



Basic Compensation Ratio Example:

CPW confirms **2** cows were killed by wolves on a large Forest Service allotment in May and **1** calf was killed by wolves in July. A range rider checks on the cattle twice a week during the grazing season. When the cattle come home at the end of the season, they determine that **3** calves are missing.

<u>Calculation</u>: Eligible Compensation Ratio = **7:1**

7 (Compensation Ratio) X 3 (Confirmed depredations) = 21 max eligible

Compensation:

2 cows and 1 calf confirmed depredated by CPW (100% FMV), AND

3 missing calves (100% FMV)



Basic Compensation Ratio Example:

Over the grazing season, CPW confirms **5** sheep were killed by wolves on a large Forest Service allotment. A sheepherder is constantly with the band of sheep and there are guard dogs present. When the sheep are taken off the range **40** sheep are missing.

<u>Calculation</u>: Eligible Compensation Ratio = **7**:**1**

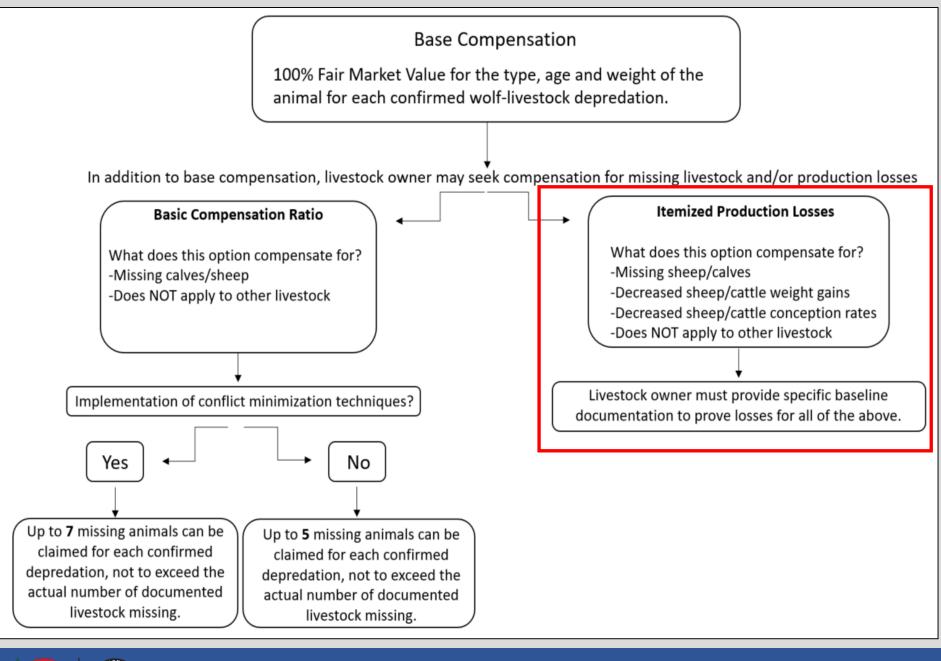
7 (Compensation Ratio) X 5 (Confirmed depredations) = 35 max eligible

Compensation:

5 sheep confirmed depredated by CPW (100% FMV), AND

35 missing sheep (100% FMV)









Option 2: Itemized Production Losses

Missing calves/sheep can be claimed if 2 conditions are met:

- 1. Owner must have at least one confirmed cattle/sheep depredation.
- 2. Owner must reasonably believe missing livestock was lost to wolves.

Additional information, documentation and records:

- Tangible evidence wolves were present where livestock are missing
- Baseline death loss of 3 years (pre wolf) with production records
- Vaccination status for current year
- Number of livestock at the beginning and end of grazing season
- Number of animals that died from other predators (bear, lion, coyote),
 disease, or other factors during the grazing season



Option 2: Itemized Production Losses

For decreased cattle/sheep weight gains; required documentation:

- Baseline weights of 3 years (pre-wolf) AND current year weights
- Weight tickets, production records, sales records

For <u>decreased cattle/sheep conception rates</u>; required documentation:

- Baseline conception rates of 3-years (pre-wolf) AND current year rates
- Production records/vet records
- Written statement from vet with body condition scores, pregnancy rate information and no known issues in livestock

Itemized Production Losses Example:

Over the grazing season, CPW confirms **5** sheep were killed by wolves on a large USFS allotment. A sheepherder is constantly with the band of sheep and there are guard dogs present. The owner chose to itemize production losses instead of the basic compensation ratio.

The livestock owner provides 3-year baseline documentation for weaning weights, along with the current year weaning weights and there is a 5% reduction in average weaning weights at 95 lbs. per lamb.

Compensation is based on the difference in price per head the livestock owner actually received and the price per head the owner would have received on an average year.



Itemized Production Losses Example:

Calculation:

- Contract price for 100 lb lamb is \$200
- Price received for lambs at 95 lbs is \$190

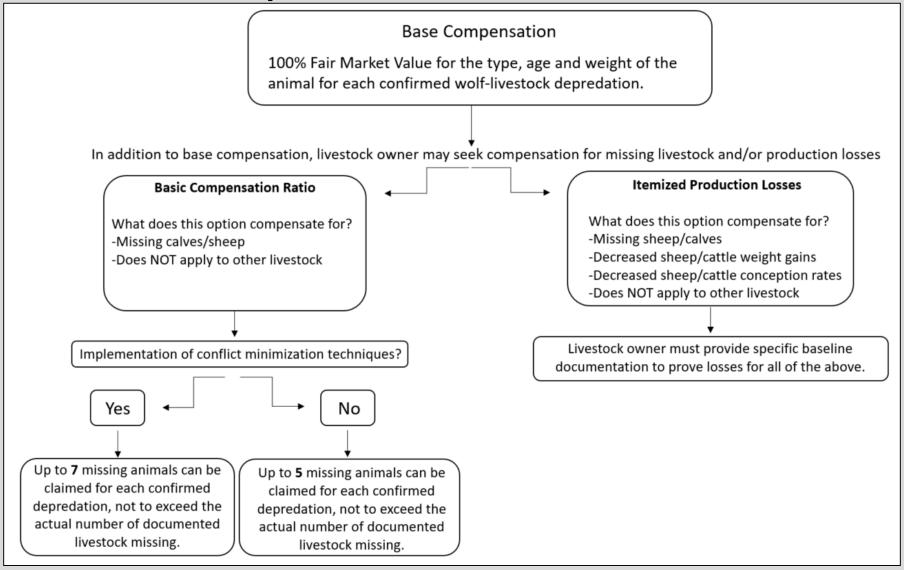
Compensation:

\$10 per lamb sold under contract AND 100% Fair Market Value compensation for the 5 confirmed sheep depredations

** The livestock owner can also claim missing animals **



Compensation Flowchart







Questions from Commissioners







Chapter 7 – Monitoring, Ungulate Management, Research, and

Reporting







Photos: Colorado Parks and Wildlife





Wolf Population Monitoring







Wolf Health Monitoring







Ungulate Population Monitoring and Research







Photos: Colorado Parks and Wildlife

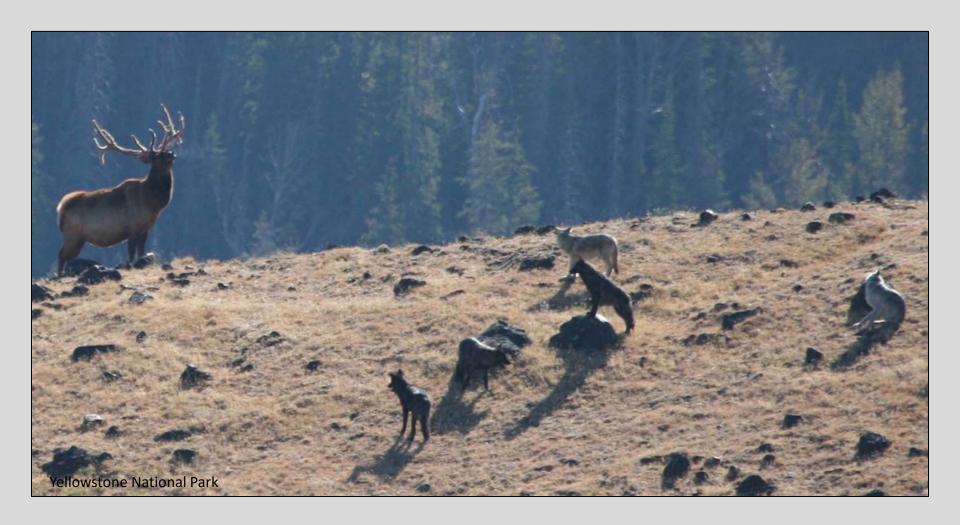




Possible Research Priorities

- Social tolerance for wolves
- Wolf ecology
- Wolf-livestock interactions
- Wolf-ungulate interactions
- Wolf interactions with other predators and habitat

Reporting







Chapter 8 – Communications, Education, and Partner Coordination









Online communications

Frequently updated web pages including:

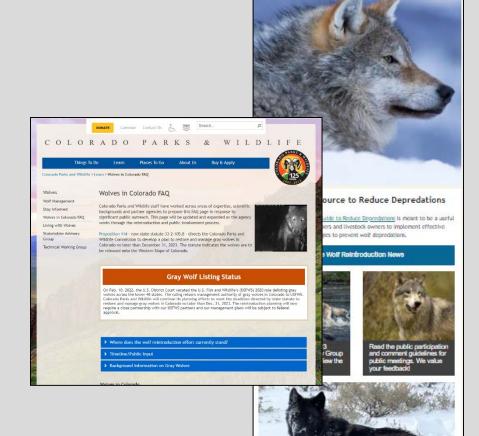
- Stay Informed
- Wolf Management
- Wolves in Colorado FAQ
- Living with Wolves
- SAG/TWG Pages

Gray Wolf Reintroduction eNews

- Over 4,500 subscribers
- 17 topic-specific newsletters sent since March, 2021

Educational sessions

 Three recorded sessions with guest experts on YouTube/website







Print communications

Signage and handouts including:

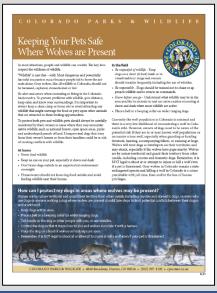
- Keeping Your Pets Safe
- How to Spot Differences Coyote or Gray Wolf

Hands-on Depredation Guide

- Printed over 3,000 copies to date for field staff to share with landowners or meeting attendees
- Translated and printed in Spanish











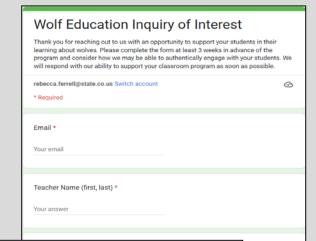
Education programs

Educator Programs

Pathway for specific requests

Educators Toolkit being created to align with Stakeholder Advisory Group recommendations and will include, but are not limited to:

- Standards-based curriculum/lesson plans
- Educational videos (part of Wild Classroom)
- Interpretive program plans such as Facilitation Dialogue scripts





Students will be able to Identify the trophic level for walves and their prey.

Build a food web based on an ecosystem in Colorado.

Evolain how a food wab might

Colorado Academic Standards:

Upper Elementary:
• SC.5.22: Marter cycles between a

and soil, among plants, an imals and microbes as the organisms live and die. . SCMS.2.5: Organisms and dependent on their environmental Interactions both with other living things and with non-iving. SCWS.2.6: Ecosystems are sustained by the continuous flow of energy, originating primarily from the sun, and then recycling

of matter and nutrients within

the system.
• SC.W.S.2.7: Ecosystems are

change overtime with and without

Colorado feeding on herds of bison, elk and deer, while supplementing their diet with rabbits, rodents and carrion.

Once distributed statewide, the gray wolf has long been extirpated from the state, with wolves deemed to be off the landscape around 1940. When market hunters over-hunted the large mammals that constituted the main diet of wolves in the 1800s, they naturally turned to a new food source in the developing frontier - livestock. Recause of their depredation of domestic animals, wolves in Colorado were systematically eradicated by shooting, trapping and poisoning. Over the past few decades, Colorado has confirmed wolves traveling in and out of the state, with the first known breeding pair to be confirmed by Colorado Parks and Wildlife biologists in



initiative directing the Colorado Parks and Wildlife Commission to develop a plan to reintroduce gray wolves onto the western slope of Colorado by December 31, 2023. Through a collaborative process between stakeholders and experts in the field, a Technical Working Group and Stakeholder Advisory Group will provide recommendations to Colorado Parks and Wildlife staff for the plan to reintroduce and manage gray wolves.





Programming in Development

The final report from the SAG identified key outreach and educational opportunities for six target audiences:

- General public
- Agricultural community
- Sportspersons and outfitters
- Wolf advocates
- Outdoor recreationists
- Decision makers at a local/municipal level

Launching today, a Gray Wolf Restoration and Management Plan comment form will be available for any interested parties to share feedback at engagecpw.org





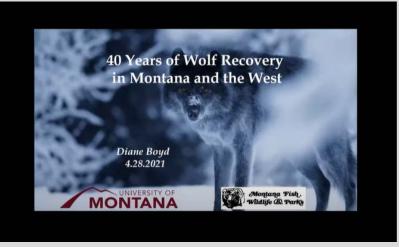




Partner and Agency Coordination







Photos: Colorado Parks and Wildlife





Chapter 9 - Funding

- (4) In furtherance of this section and the expressed intent of voters, the general assembly:
- (a) Shall make such appropriations as are necessary to fund the programs authorized and obligations imposed by this section, including fair compensation for livestock losses that are authorized by this section; and
- (b) May adopt such other legislation as will facilitate the implementation of the restoration of gray wolves to Colorado.

CRS 33-2-105.8 (4)



Funding Needed to Support

- Staffing
 - Full Time
 - Technicians
- Resources
 - Equipment
- Monitoring Programs
- Conflict Minimization Program
- Depredation Compensation Program
- Education Program









Acknowledgements

- Technical Working Group
- Stakeholder Advisory Group
- Keystone Policy Center
- Parks and Wildlife Commission
- Colorado Parks and Wildlife Staff
- Public



Technical Working Group

Scott Becker, U.S. Fish and Wildlife Service Wyoming Wolf Coordinator

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Stewart Breck, National Wildlife Research Center Research Wildlife Biologist

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Jonathan Houck, Gunnison County Commissioner

Merrit Linke, Grand County Commissioner

Steve Lohr, United States Forest Service Renewable Resources Director, Rocky Mountain Region Martin Lowney, U.S. Department of Agriculture, Wildlife Services

Animal and Plant Health Inspection Service, State Director

Carter Niemeyer, U.S. Fish and Wildlife Service Idaho Wolf Recovery Manager, Retired

Eric Odell, Colorado Parks and Wildlife Species Conservation Program Manager

Mike Phillips, Rocky Mountain Wolf Project Founder/Turner Endangered Species Fund, Executive Director

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