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Wolf-Livestock Conflict Minimization Program

Producer Guide

January 2025



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Introduction

This Wolf-Livestock Conflict Minimization Program Guide was developed by Colorado Parks and Wildlife (CPW) to inform producers on how to reduce conflict between livestock and wolves while the [Colorado Wolf Restoration and Management Plan](#) (Plan) is implemented and into the future.

The guide provides information on a variety of tools and methods available for livestock producers to employ in efforts to reduce the likelihood of wolf-livestock conflicts and establishes a framework for CPW's response, along with available support from other state, federal and nongovernmental organizations (NGOs).

The expertise and perspectives of many stakeholders in wolf restoration throughout Colorado have been incorporated into this guidance. The common goal is to achieve a healthy, self-sustaining gray wolf population in the state, while supporting rural ways of life and the robust livestock industry that is such a critical component of Colorado's culture and economy.



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Background

Proposition 114, now state statute 33-2-105.8, passed on November 3, 2020. The voters of Colorado directed the Colorado Parks and Wildlife Commission (commission) to develop a plan to introduce and manage gray wolves in Colorado west of the Continental Divide no later than December 31, 2023. Further, CPW is mandated to establish a self-sustaining population of wolves.

The Colorado Wolf Restoration and Management Plan was created with the primary goal to reestablish 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. CPW convened a Technical Working Group (TWG) and a Stakeholder Advisory Group (SAG) to assist in the development of the Plan. A professional facilitator was hired to manage these processes, and an extensive public comment process was completed.

Colorado Parks and Wildlife presented the draft Plan to the commission on Dec. 9, 2022. The commission approved the final Plan on May 3, 2023. The first ten wolves were reintroduced to the state in December 2023. It is anticipated that wolf reintroduction efforts will require the transfer of 10-15 wolves per year for 3-5 years, with a total reintroduction consisting of 30-50 wolves.

This guide outlines the various tools, methods, personnel and funding support available to Colorado livestock producers in order to support wolf recovery and maintain the coexistence of wolves and livestock in Colorado. **The goal of this guide is to describe tools and resources that can be implemented to influence/change wolf behavior to reduce the potential for recurring wolf depredations on livestock while promoting wolf restoration.**

CPW encourages livestock producers to use proactive, non-lethal deterrence methods to reduce the likelihood of wolf-livestock conflict.

This guide provides a wide range of measures and available support to minimize wolf-livestock conflict. In most cases the most effective application of non-lethal methods will be a combination that is developed in coordination between CPW staff, partners and the livestock owner for their operation. No solution guarantees complete avoidance or prevention of conflict, however CPW is confident that application of these methods will help reduce conflict. This guide also provides the criteria for the consideration of lethal removal of wolves.



Conflict Minimization Measures & Expectations

State statute requires the commission to oversee “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).

Please see the section titled ‘Wolf Depredation Compensation’ in this document for further information regarding compensation. This information is also available on the [Wolf Depredation page](#) on the CPW website.

This section will focus on how CPW is assisting in the prevention and resolution of conflicts between wolves and livestock. CPW staff developed an initial conflict minimization plan based on technical and social considerations from the TWG and SAG as well as input from other state and federal wildlife management agencies. Throughout the first year of the implementation of the plan, additional staff were hired, and more methods and tools were developed and deployed, bolstering the capabilities available to producers to prepare for and manage wolf interactions with livestock.

As restoration efforts continue, CPW is focused on supporting an environment where livestock owners, communities, state agencies and partners work both individually and together in order to reduce the likelihood of wolf-livestock conflict. Effective and innovative solutions will result from this local expertise and extended, respectful collaboration. These relationships are critical to the success of wolf restoration in Colorado while at the same time supporting agricultural communities and the vital role they play in Colorado’s economy, heritage and conservation efforts. The following sections provide information on three key areas of support for livestock owners:

- Personnel
 - CPW and other state, federal and NGO staff available to assist livestock owners to help minimize wolf-livestock conflict.
- Deterrence Tools & Methods
 - Specific tools and methods to be incorporated into an overall strategy for each operation in order to provide the best chance for limited conflict.
- Funding
 - Funding sources and contact information to support the range of conflict minimization options available to livestock owners.



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Personnel

Before the implementation of the Plan, CPW hired a wolf conflict coordinator to serve as the statewide subject matter expert on wolf-livestock conflicts. CPW area and regional personnel who have years of experience managing wildlife-livestock conflict were also trained on wolf-specific minimization and investigative techniques.

CPW and the Colorado Department of Agriculture (CDA) have significantly increased conflict-reduction specialist staff throughout the first year of wolf restoration. Between April and June, CPW brought on five wildlife damage specialists and is recruiting for five more in January, 2025. These positions are currently based out of each CPW region and were, in addition to the wolf conflict coordinator, hired in 2022.

In the summer of 2024, CDA hired a non-lethal conflict reduction program manager. Two CDA non-lethal mitigation specialists started in their positions in December, 2024. These staff are available, along with CPW staff, to connect producers to available resources, including equipment, site assessments and compensation claim submissions.

Staff from [USDA-APHIS Wildlife Services](#), [Colorado State University Extension](#), [USDA Natural Resources Conservation Service](#) (USDA NRCS) and NGOs are also available to assist producers in establishing non-lethal solutions for their operations.

See Appendix D, CPW Area Offices and Wolf Contacts, for contact information for these individuals and organizations.

Deterrence Tools & Methods

CPW created the [Hands-on Wolf Resource Guide to Reduce Depredations](#) as an introduction for ranchers and livestock producers to effective strategies to minimize wolf depredations.

As the first year of the Plan came to completion, CPW created this document as an expanded guide to assist ranchers and livestock owners with more information.

The tools and methods that will be most effective for a particular livestock operation depend on many factors, such as livestock species, number of livestock, terrain, landscape, conditions and time of year. The ultimate goal is to prepare for and be ready to deter unwanted wolf behaviors early with aggressive, legal and appropriate techniques.



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CPW's expectation is that livestock owners, local CPW wildlife managers and wildlife damage specialists work collaboratively to conduct a site assessment and develop a plan to deploy the most appropriate deterrence tools and methods proactively before any depredations occur if possible. If a depredation has already occurred and no assessment has been completed, a CPW depredation team will quickly work with the livestock owner to conduct a site assessment and deploy deterrence tools to minimize the potential for additional depredations. Livestock owners should start the process by calling their area CPW office or District Wildlife Manager.

Common and recommended deterrence methods include:

- Establishing a conflict mitigation plan through a site assessment
- Monitoring livestock through range riders
- Managing carcasses on the landscape
- Increasing human presence in vulnerable areas
- Protecting calving and lambing areas
- Installing deterrent fencing
- Avoiding wolf den and rendezvous sites
- Deploying scare devices
- Using guardian or herding dogs

Funding

CPW has been working with CDA, U.S. Fish and Wildlife Service (USFWS), USDA NRCS and experienced NGOs to bolster wolf coexistence programs, streamline the permitting process, and make funding more easily accessible to the ranching community.

Colorado Wolf Depredation Compensation Cash Fund

[Visit the Wolf Depredation Compensation Fund Website Here](#)

A dedicated Wolf Depredation Compensation cash fund provided from the state's General Fund will receive \$350,000 General Funds per fiscal year to keep a healthy balance in the fund on an ongoing basis.

CDA Non-lethal Wolf Conflict Reduction Grant Program

[Visit the Non-lethal Wolf Conflict Reduction Grant Program Website Here](#)

CDA and CPW have developed a grant program to assist with implementing non-lethal wolf conflict reduction measures. Grants of up to \$20,000 were made available to



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entities and organizations for 2024-2025, including but not limited to livestock associations, governmental entities, and tribes, that provide support to multiple producers.

CDA has reached the funding limit for this program for this fiscal year and is no longer accepting applications. Organizations that are interested in future funds through CDA for Non-lethal Wolf Conflict Reduction should reach out to:

Dustin Shiflett
CDA Non-lethal Conflict Reduction Program Mgr
dustin.shiflett@state.co.us
720-902-1222

This program is administered by CDA and the grants will fund training, education, or other preventative support that will help producers use non-lethal predator deterrents and prepare for coexistence with wolves.

Fladry and other materials available directly through CPW are not eligible expenses.

Priority for funding will be placed on areas currently experiencing depredation as well as other areas where wolves are found in Colorado, but any area in Colorado that may experience wolf conflicts in the future is eligible. CDA will work with interested entities on a case-by-case basis to determine if funding is appropriate. Grants will be available on a first-come, first-served basis.

‘Born to Be Wild’ license plate (Rocky Mountain Wolf Project)

[Visit the Vehicle License Plates Website Here](#)

The funds generated from the license plate contribute to non-lethal mitigation techniques for livestock producers. The license plate was created with House Bill 23-1265. Over \$600,000 was raised through the sales of this license plate in 2024.

Regional Conservation Partnership Program (RCPP)

Since 2023 CPW has been working with Western Landowners Alliance and NRCS to develop additional federal support to landscape risk management when relating to wolves. This program, which is a partnership between entities within this state and USDA NRCS, has created a separate, complimentary funding source of \$2.5 million available to Colorado landowners and livestock owners over a four-year period. This program provides support to those interested in cost-sharing expenses associated with range riding, carcass management, fencing, and monitoring efforts. This additive funding is complementary to what CPW, CDA, USDA APHIS Wildlife Services, and



others are implementing regarding conflict reduction in the state and will be an asset to landowners, livestock owners, and agencies.

Conflict Minimization Methods

The table below presents descriptions of deterrence methods for livestock owners to consider while working with CPW on a plan to minimize wolf-livestock conflict for their operation. Agency funding sources and contact information is also included.

Method	Description	Funding Sources	Contact Information
Site Assessment	A free and voluntary site assessment is a process that identifies which deterrent methods are most effective for a particular area and ranching operation. It is the first step in preparing for wolves in an area and is best done proactively. See Appendix A - Site Assessment Template.	CPW NRCS	CPW Area Office/DWM See Appendix D - CPW Area Offices NRCS Colorado State and Area Contacts
Range Riders	On-the-ground support for livestock producers to help protect herds from wolves. A human presence like a range rider can detect wolves and deploy non-lethal deterrents to avoid depredation of livestock. See Appendix B - Range Rider Program.	CPW CDA NRCS	Max Morton CPW Wildlife Damage Specialist max.morton@state.co.us 970-903-1519 Dustin Shiflett CDA Non-lethal Conflict Reduction Program Mgr dustin.shiflett@state.co.us 720-902-1222 NRCS Colorado State and Area Contacts
Carcass Management	Carcass management is a proactive strategy for minimizing livestock-carnivore conflicts by effectively managing attractants like carcasses, bone piles, and afterbirth.	CDA NRCS	Dustin Shiflett CDA Non-lethal Conflict Reduction Program Mgr dustin.shiflett@state.co.us 720-902-1222



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Method	Description	Funding Sources	Contact Information
	While vulnerable animals such as calves and lambs can draw carnivores, managing carcasses, bone piles, and afterbirths may reduce carnivore and livestock interactions, especially in heavily concentrated livestock areas. See Appendix C - Carcass Management.		NRCS Colorado State and Area Contacts
Human Presence	Increase human presence (ranch employees, family members, sheep herders) to protect livestock by patrolling the vicinity occupied by livestock on a daily or near-daily basis. These individuals communicate frequently with CPW and livestock owners about issues, including livestock depredations and wolf activity, monitor livestock and use scare devices (see below) to deter wolves.	Devices may be provided by CPW	CPW Area Office/DWM, See Appendix D - CPW Area Offices
Protection of Calving and Lambing Areas	If possible, establish calving/lambing areas away from areas with wolf presence: near ranch houses or pastures near human presence, allowing for more frequent livestock checks and hazing if necessary. Use protective fencing or fladry around calving or lambing areas.	CPW NRCS	CPW Area Office/DWM, See Appendix D - CPW Area Offices NRCS Colorado State and Area Contacts
Exclusion Fencing	Use predator-resistant or electric fencing as a permanent or temporary barrier to confine livestock and deter predators.	CPW NRCS	CPW Area Office/DWM, See Appendix D - CPW Area Offices NRCS Colorado State and Area Contacts



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Method	Description	Funding Sources	Contact Information
Wolf Den and Rendezvous Site Avoidance	Identify potential active den or rendezvous sites by noting areas of concentrated wolf sign. Work with CPW Wildlife Conflict Specialists prior to grazing season to develop a plan to avoid these areas if there is overlap.	Expertise CPW CDA NRCS	CPW Area Office/DWM See Appendix D - CPW Area Offices Dustin Shiflett CDA Non-lethal Conflict Reduction Program Mgr dustin.shiflett@state.co.us 720-902-1222 NRCS Colorado State and Area Contacts
Scare Devices	Deploy appropriate scare devices as identified in the site assessment. This could include installing light and noise devices.	CPW	CPW Area Office/DWM See Appendix D - CPW Area Offices
Guardian Dogs	Guardian dogs alert on-site personnel of predator presence and protect livestock. Specific breeds and training are required for effective deterrence and should be used in conjunction with daily human presence. Guardian sheep dogs and herding dogs should live with the herd to provide protection full time. Guardian and herding dog owners are trained in the effective use of dogs specific to wolf-livestock situations.	USDA APHIS Wildlife Services	USDA APHIS Wildlife Services 1-866-487-3297



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Wolf Depredation Response

This information sets forth operational guidelines for depredation response by CPW staff with support from partner agencies including CDA, USDA APHIS Wildlife Services and USDA NRCS for responding to wolf depredation and conflicts across the state. For the purpose of this document, depredation is defined as physical trauma resulting in injury or death to livestock or livestock guard or herding animals. The operations established within these guidelines will take time to build to fruition and will rely on increasing staff and resource capacity within CPW and partner agencies.

The following operational guidelines are intended to help bolster the management and administration of wolf depredations, support conflict minimization, and continue to promote the restoration of gray wolves in Colorado. CPW currently has district wildlife managers and wildlife damage specialists trained to both investigate damage caused by gray wolves and to administer damage compensation. CPW has a long-standing history with game damage investigations, including bear and lion depredation, and has always prioritized response based on timely reporting, the potential for scavenging, decomposition, loss of physical evidence, the threat of continued conflict, and other factors.

Levels of Response to Depredation(s):

The “Levels of Response” provide a general outline for field staff to use when addressing wolf conflict and depredations either proactively or reactively. This outline can aid in determining how much staff time and resources could be used for a depredation, or from known wolf activity and risk for possible future conflict scenarios. The level of response will be site-specific and based on the staff’s professional assessment, cooperation from the livestock owner, and evaluation of a site assessment. Many wolf depredations are a one-time event; however, more aggressive intervention may occur in scenarios with multiple probable and/or confirmed depredations, nearby wolf den and rendezvous sites, and evaluation of pack territories or behaviors. Early and aggressive hazing efforts to change the behavior of depredating animals can be a very effective manner in which to alter the undesirable behavior. A site assessment is a valuable tool for understanding and assessing risk. It will be part of the equation for determining conflict response.



Level 1:

- Meet with the livestock owner and review or conduct a site assessment. Begin to assess the level of wolf activity in the area and outline potential conflict mitigation efforts moving forward. Seek permission to use non-lethal mitigation tools, establish communication preferences, and collaboratively delineate responsibilities.
- Personnel: CPW wildlife damage specialist, district wildlife manager, CPW wolf program staff, and partner agencies. The wildlife damage specialist will lead and coordinate a response when possible. If a wildlife damage specialist is unavailable, the district wildlife manager whose district the conflict occurs in will be the lead. The lead will coordinate staff and resources to implement an appropriate level of response.
- Level 1 Response Conditions: Areas with known wolf activity and the possibility of imminent or ongoing depredation should be prioritized. Decisions to increase or decrease the level of response should be in coordination with the area wildlife manager or assistant area wildlife manager based upon the on-the-ground assessment of the lead staff.
- Determine whether a Level 2 response is appropriate.

Level 2:

- Conflict reduction tools/techniques are identified and deployed as needed, with ongoing assessment of their effectiveness in relation to known wolf behavior. These may include deploying trail cameras, injurious non-lethal hazing permits, outreach to neighboring livestock owners, carcass management options, fox lights, turbo fladry, and range riders. Focus should remain on whether conflict reduction techniques are influencing individual wolf or wolf pack behaviors and adapting as necessary.
- Personnel: Wildlife damage specialist, district wildlife manager, CPW wolf program staff, partner agencies, NGOs. The wildlife damage specialist will lead and coordinate a response when possible. If a wildlife damage specialist is unavailable, the district wildlife manager whose district the conflict occurs in will be the lead. The lead will coordinate staff and resources to implement an appropriate level of response.
- Level 2 Response Conditions: One or more depredations or as determined by area staff. Decisions to increase or decrease the level of response should be in coordination with the area wildlife manager or assistant area wildlife manager based upon the on the ground assessment of the lead staff.



- CPW and/or partner agencies will communicate with livestock owners and offer technical assistance in deploying nonlethal deterrence measures based on the ongoing risk of conflict and known wolf activity.
- Determine whether a Level 3 response is appropriate.

Level 3:

- Escalated intervention to help mitigate wolf-livestock conflict through increased onsite presence by CPW and/or partner agency and NGO staff.
- Personnel: Wildlife damage specialist, district wildlife manager, CPW wolf program staff, partner agencies, NGOs. The wildlife damage specialist will lead and coordinate a response when possible. If a wildlife damage specialist is unavailable, the district wildlife manager whose district the conflict occurs in will be the lead.
 - Level 3 response may entail an increased reliance on CPW staff, wildlife damage specialists from other regions, and partner agency staff and NGOs.
 - Level 3 responses must be evaluated based on the sustainability of the efforts and the demands placed on existing staff and resources.
- Level 3 Response Conditions: sustained wolf presence in high-risk landscapes, documented wolf depredation or increasing wolf depredation, potential for chronic depredation events, or as determined by area or regional management staff. Decisions to increase or decrease the level of response should be in coordination with the area wildlife manager, region management, and wolf program staff based upon the on the ground assessment of the lead staff.
- All conflict reduction tools/techniques as determined by a site assessment to be viable, reasonable, and effective for the site-specific circumstance, are to be deployed as soon as practicable in coordination with the livestock owner. These may include deploying trail cameras, injurious non-lethal hazing permits, outreach to neighboring producers, carcass management options, fox lights, turbo fladry, and range riders. Focus should remain on whether conflict reduction techniques are influencing individual wolf or wolf pack behaviors and adapting as necessary.

More detailed information related to wolf depredation response will be published in early 2025.



Wolf Depredation Compensation

As previously stated, Colorado state statute requires the commission to oversee “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).

This section provides details regarding fair compensation to owners of livestock for any losses of livestock caused by wolves.

Livestock producers could be eligible for the fair market value of the livestock if a claim is submitted. CPW provides reimbursement for damages caused by gray wolves:

- To livestock defined in C.R.S. 33-2-105.8
- To animals used for guard/herding purposes

If a depredation incident is confirmed by CPW:

- Livestock owners can be reimbursed the fair market value of the animal, up to \$15,000.
- Livestock owners can also receive reimbursement of veterinarian costs for the treatment of injured livestock or guard/herding animals, up to \$15,000.

Once a confirmed wolf depredation occurs to cattle or sheep in large, open-range settings where topography and vegetation make it difficult to confirm depredations in a timely manner, livestock owners will have two compensation options:

- A Basic Compensation Ratio option, which provides compensation for missing calves or sheep in larger open-range settings.
- An Itemized Production Losses option, which provides compensation for missing calves and sheep as well as indirect losses, including decreased weaning weights, decreased conception rates and other indirect losses on a case-by-case basis.

Claimants are required to file completed claim paperwork within 90 days of CPW's receipt of the claimant's last notice of loss. The claimant may also elect to delay filing their claim up to December 31 for the year when the losses occurred.

By statute, revenues from the sale of hunting or fishing licenses will not be used to fund wolf depredation reimbursements. Compensation will come from the General Fund, the



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Species Conservation Trust Fund, the Colorado Nongame Conservation and Wildlife Restoration Cash Funds, the Wildlife Cash Fund, or other sources of funding for non-game species.

Detailed information regarding the CPW Compensation Program [can be found in the Plan](#), Chapter 6, 'Wolf-Livestock Interactions'. CPW staff are available to assist livestock owners with the claims process and information.

Information related to depredation events can be found on CPW's [Confirmed Wolf Depredation web page](#). CPW currently redacts livestock producer's personal information as part of the claims process.



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Gray Wolf Management Criteria and Permits

10(j) rule

Wolves are protected under the federal Endangered Species Act in Colorado. With that status, “take” is prohibited unless authorized by the 10(j) Rule. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” 16 U.S.C. § 1532(19). The table in the [10\(j\) rule](#) describes the circumstances when the take of wolves is allowed in Colorado. Aside from what is listed in the table, no other take of wolves is allowed in Colorado.

Gray wolves are also listed as endangered under Colorado’s Nongame, Endangered, or Threatened Wildlife and Rare Plant Conservation Act. 2 CCR 406-10:1002.A.3. So state law also prohibits hunting or taking gray wolves without authorization. See §§ 33-2-105(3); 33-6-109(1), C.R.S.

Permits

Any person may take a wolf in defense of the individual’s life or the life of another person.

Opportunistic harassment of any gray wolf in a non-injurious manner is permitted at any time. Opportunistic harassment must be reported to CPW within seven days.

Intentionally Injurious Non-Lethal Hazing Permit

This permit authorizes the livestock owner to conduct intentionally injurious, non-lethal hazing of gray wolves through the use of materials designed to cause physical discomfort and temporary physical injury, but not death. These materials include less-than-lethal munitions such as bean bags, rubber buckshot, rubber double balls, or paintballs (“Authorized Hazing Materials”). The livestock owner must follow CPW’s instructions concerning using the authorized hazing materials and take the necessary steps to avoid fatal injury to gray wolves. Livestock owners must target the largest muscle mass of the gray wolf, the hind quarters. Authorized hazing materials are considered less than lethal, however, mishandling these munitions can result in serious injury or death. Follow all firearms safety rules.

CPW may provide authorized hazing materials to the livestock owner. The livestock owner assumes all risks associated with their use, possession, and storage, and the livestock owner must promptly report the loss or theft of such materials to CPW. If CPW



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provides such materials, the livestock owner may not sell or transfer such materials. This permit also authorizes the livestock owner to purchase and use the authorized hazing materials described above, as necessary to carry out the permitted activities.

It is unlawful for any person to use an electronic call device or place any olfactory attractant with the intent to lure gray wolves. This permit does not authorize the use of such calls or attractants.

Livestock owners should contact their Area Office/DWM, See Appendix D - CPW Area Offices, for permit information and applications.

In the Act Permit

A retroactive permit may be issued to any landowner who takes a gray wolf caught in the act of attacking livestock on their private land or state or federal land that they are legally grazing. A landowner must provide evidence of livestock, stock animals recently (within 24 hours, unless impractical, but no later than 72 hours) wounded, harassed or killed by wolves. The carcass of any wolf taken and the area surrounding it should not be disturbed in order to preserve physical evidence. CPW will investigate any such take.

Chronic Depredation Permit

Livestock owners or their agents' take of chronic depredating wolves will only be conducted using limited duration permits if state/federal agents do not have the resources to implement on-the-ground lethal control actions.

Chronic Depredation - Definitions and Considerations

Colorado Parks and Wildlife (CPW, The Division), with input from the Ad Hoc Wolf Working Group and in consultation with the USFWS, has created an internal administrative directive defining "chronic depredation" and lethal removal considerations for gray wolf management.

Definitions

"Chronic Depredation" means three or more depredation events caused by the same wolf or wolves within a 30-day period, provided there is clear and convincing evidence that at least one of the depredation events was caused by wolves. The other two events could meet either "clear and convincing" or "preponderance of evidence" standards.



“Clear and convincing” is a higher standard than the preponderance of evidence standard used for wolf depredation compensation and other game damage. Clear and convincing evidence leaves no room for serious doubt that a wolf or wolves caused physical trauma resulting in injury or death to livestock or working dogs. The Division will find the preponderance of the evidence standard is met when the evidence shows a wolf or wolves more likely than not caused physical trauma resulting in injury or death to the producer’s livestock or working dogs.

A ‘Depredation Event’ means a 24-hour period in which the Division determines by a preponderance of the evidence that a wolf or wolves caused physical trauma resulting in injury or death to a producer’s livestock or working dogs.

Lethal Management Considerations

The Commission’s regulations require the Division to consider four factors when determining whether a situation qualifies for lethal removal of depredating wolves:

- Documented repeated depredation and harassment of a producer’s livestock or working dogs caused by the wolf, wolves, or pack targeted;
- Use of a variety of non-lethal conflict minimization materials and techniques;
- Likelihood that additional wolf-related depredation will continue if lethal control is or is not implemented; and
- Unintentional or intentional use of attractants that may be luring or baiting wolves to the location.

The Division will apply this standard on a case-by-case basis to determine whether lethal removal is appropriate under the circumstances. While the Division may conclude lethal removal is appropriate in other circumstances, the Division will conclude lethal removal is appropriate when it determines a livestock producer has experienced chronic depredation despite implementing all viable, reasonable, and effective non-lethal deterrence measures identified in a site assessment and removing any attractants that could lure wolves to the site.

The Director will make this determination in coordination with appropriate Division staff, and after consulting with the U.S. Fish and Wildlife Service.

If the Division concludes lethal removal is appropriate under the circumstances, Division staff or federal agents will lethally remove the depredating wolf or wolves. If state and federal agencies do not have the capacity to lethally remove the depredating wolf or



wolves, the Division may issue a chronic depredation permit if additional criteria are satisfied.

When carrying out a lethal removal effort, the Division's goals will include:

- Targeting the wolves responsible for the depredations to the best extent possible;
- Minimizing the number of wolves that must be lethally removed;
- Changing pack behavior to reduce the potential for future depredation; and
- Using the fastest, safest, most humane, and most cost-effective methods available.

Consistent with these goals, the agency will use an incremental approach. For example, if an entire pack is responsible for the depredations, the Division will start by trying to remove one or two wolves (an active removal period), then evaluate whether the removal efforts have achieved the goal of changing pack behavior (an evaluation period). Even if the Division fails to remove wolves during the active removal period, it will conduct an evaluation period to assess any changes in pack behavior. The Division expects all non-lethal deterrence methods implemented prior to the agency's removal efforts to continue during the evaluation period. If, after the evaluation period, the agency determines the removal efforts did not change pack behavior, it may initiate another active removal period, followed by another evaluation period, until the agency has removed the entire pack or determined its removal efforts have sufficiently changed pack behavior.

After the Division concludes a lethal removal effort, the agency will prepare a final report that includes the rationale for removal, the location of the removal, the identity of the wolves or pack targeted, the nonlethal deterrence methods implemented prior to removal, and whether any wolves were lethally removed.



Appendix A - Site Assessment Protocol

Colorado Parks and Wildlife (CPW), CDA, USDA APHIS Wildlife Services, and USDA NRCS are offering free, voluntary site assessments to assist livestock owners in evaluating their individual operations, and/or their grazing allotments, for the reasonable use of conflict minimization tools and techniques. These assessments may be either proactive or reactive and may be requested at any point in time by a livestock owner. Livestock owners will be provided a copy of the wolf site assessment document that outlines viable conflict minimization options, resources for potential implementation, guidance on the use of recommended equipment, and contact information for potential partners. The ultimate goals of these efforts are to enhance communications and relationships with livestock communities, identify conflict minimization options for individual operations, provide details on the use and maintenance of each recommendation, and reduce wolf-livestock conflict. Should depredation reach chronic levels, implementation of practices outlined in site assessments will be reviewed as agency management makes wolf management decisions in cases of chronic depredation.

Proactive Site Assessment

1. Concern is expressed by a livestock owner to trained staff pertaining to potential wolf-livestock conflict.
2. Available trained staff (CPW, CDA, USDA APHIS Wildlife Services, USDA NRCS) conduct site assessment(s) which typically takes a 45-minute to two-hour conversation, and provide guidance on hazing options that do not require an Injurious Non-lethal Hazing permit. Staff may also assess if the situation warrants issuing an Injurious Non-lethal Hazing permit, and may make a recommendation to apply in cases of documented wolf presence.
3. Prior to resource deployment a materials request is submitted and upon approval, livestock owner gives written permission to implement tools/techniques, partner with trained staff, and removes attractants/allows the removal of attractants such as carcasses in proximity to livestock within a discussed (recommended) timeframe. Delays in securing or removing attractants may delay the implementation of conflict minimization tools and techniques.
4. Based on agency resource availability, risk, and livestock owner participation, a proactive site assessment will result in a cooperative agreement for loaned materials.



Cooperative loan agreement/material request(s) will only be approved once a site assessment has been completed and material requests have been ranked.

5. The monitoring and evaluation of tool/technique efficacy will be conducted in partnership with the livestock owner. Success of tool/technique implementation will be measured by behavior changes, or depredation never occurring.

Reactive Site Assessment

1. The livestock owner notifies CPW staff of damage occurring, or that suspected damage has occurred.

2. Appropriately trained CPW staff conduct a depredation investigation to determine if evidence indicates a bear, lion, or wolf killed/damaged livestock.

3. Available trained staff (CPW, CDA, USDA APHIS Wildlife Services) will conduct a wolf site assessment, which typically takes 45 minutes to two hours, and provide tool/technique recommendations, and guidance on aggressive hazing options that do not require an Injurious Non-Lethal Hazing permit. This also serves to catalog efforts the livestock owner is already implementing. Staff should recommend landowner apply for an Injurious Non-Lethal Hazing permit, and provide claim paperwork.

4. Reactive Site Assessments should be completed quickly after depredation occurs. However, there are logistical challenges associated with subsequent deployment of tools/techniques such as fladry, range riding, and carcass pit security. Reactive resource deployment/declination is dependent on documented livestock owner permission to allow tools/techniques to be implemented and willingness to manage attractants in a timely manner as requested.

5. High effort depredation response tools/techniques should be implemented in a timely manner in cases of significant loss in an attempt to reduce further loss and change wolf behavior. Reactive resource deployment may occur in response to damage. Reactive materials requests will be assessed based on the totality of circumstances.

6. A materials loan form is completed. Low-effort materials are then deployed as appropriate/available. High effort materials (e.g., fladry, fencing, and range riders) will require additional planning and will be deployed for an acute time frame and will be heavily dependent on labor availability and livestock owner permission.

7. The monitoring and evaluation of tool/technique efficacy will be conducted in partnership with the livestock owner. Success of tool/technique implementation will be



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measured by behavior changes, reduced depredation, or depredation ceasing altogether.



Appendix B - Range Rider Program

The Colorado Department of Agriculture and CPW Range Rider Program is structured to address the needs of livestock owners whose livestock operations have been negatively affected by wolves when on range. Through this collaborative effort, the agencies can quickly address on-the-ground wolf conflict in real time, educate and inform others involved of agency efforts as conflict events unfold, and set consistent training standards and curriculum for managing wolf conflict effectively and efficiently across the state. The agencies are building a transparent program that livestock owners can understand and take part in. This cooperation extends beyond the agencies and allows for livestock owners and others affected by wolf conflict to play a part in addressing conflict and structuring a response as Colorado's wolf population grows. Basic roles and responsibilities for each agency are outlined below.

Range Riding Roles & Responsibilities

Colorado Department of Agriculture

CDA has hired two non-lethal mitigation specialists, one for the NW and one for the SW.

- Due to the nature of these positions, CDA non-lethal specialists will be considered more mobile than CPW range riders and will “float” more freely between areas and conflict situations than CPW riders.
- When not addressing conflict directly, CDA non-lethal specialists will focus on education, training, and outreach at wolf coexistence meetings, stockgrower meetings, range riding clinics, etc.
 - As the range riding program develops, CDA non-lethal specialists will take the lead on educating and training new range riders employed by CPW, CDA, USDA APHIS Wildlife Services, and through local organizations and NGOs across the state.
 - CDA non-lethal specialists will hold an annual training in late April to train all riders in the state on the key elements of range riding to standardize riding procedures and data collection.
- When wolf/livestock conflict arises, CDA non-lethal specialists will be called to the field to supplement range riding needs. See duties below under “Required Field Duties.”
- CDA supervisory staff will have access to daily range rider reports and will summarize range rider efforts on a monthly and yearly basis.



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- CDA non-lethal supervisor will assist at outreach events and work public commentary and needs into the RR program.
 - CDA non-lethal specialists should expect to be available for night work as needed.
 - CDA non-lethal specialists will be issued potentially injurious non-lethal hazing permits upon the completion of the range rider training in April.

The CDA contact for this program is Dustin Shiflett, CDA Non-lethal Conflict Reduction Program Mgr.

Contact Information:

dustin.shiflett@state.co.us

720-902-1222

Please complete [CPW's Range Rider Interest Form](#) if interested in applying to be a range rider.

Colorado Parks and Wildlife

CPW plans to hire up to 12 contracted positions for the 2025 on-range season (late April to the end of September)

- CPW range riders will be deployed two per county into counties currently experiencing wolf conflict and into counties with the potential to experience wolf conflict (a list of counties can be found below under Additional Details).
- CPW range riders will be assigned a general area, watershed, or allotment within that county as a primary assignment to ride.
 - Primary areas will be identified by high wolf/cattle overlap and historic wolf-livestock conflict.
 - With two riders working in the same county or area, both riders should be trained to some degree on each other's primary areas in the event one rider needs help or is unable to ride.
- CPW range riding supervisory staff will have access to daily range riding reports and will summarize range riding efforts on a monthly and yearly basis.
- CPW range riding supervisor will assist at outreach events and work public commentary and needs into the range rider program.
- Range riders will communicate daily and/or weekly conflict needs to CPW wildlife damage specialists and the CDA non-lethal specialists.



- CPW wildlife damage specialists will implement non-lethal conflict minimization tools and strategies as needed and recommended by CPW range riders and CDA non-lethal specialists.
- CPW wildlife damage specialists will be available for night work as needed. Range riders will assist in night work as needed.

Range Rider Required Field Duties

- Log daily range riding activities to include the following:
 - GPS Track logs recorded
 - GPS tracks are required for payment
 - GPS points of interest taken
 - Scat
 - Tracks
 - Note consistent avenues of travel and areas of residence
 - Fur (points of entry along fence lines, signs of struggle)
 - Predator kills
 - Ungulates & livestock
 - Cattle behavior noted
 - Sick and injured
 - Stress behaviors
 - Hazing efforts
 - Scare devices deployed
 - Direction and duration of pursuits
 - Not to exceed a “core defensible area” as agreed upon in the Site Assessment phase or in direct proximity to livestock on range.
 - Note: hazing wolves in proximity to den or rendezvous sites is not considered acceptable. Further instructions will be given during the four day training course.
 - Responses to hazing events
 - Start & end times of daily efforts
 - Livestock carcasses found
 - Any additional points of interest pertinent to range riding activities
- Range riders will sync data back to a centralized database (daily if possible) that can be accessed by both the CDA conflict coordinator and the CPW staff to



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inform both agencies of ongoing efforts and to assist in range rider deployment and assignments

- Place and monitor trail cameras
- Detect and preserve carcasses before investigations
- Haze wolves opportunistically using both non-injurious and potentially injurious methods (for which they will be issued a permit after the completion of the April Range Rider training)
- Address high-risk situations to manage conflict proactively
- Communicate with livestock owners
 - Cattle behavior, location
 - Sick or injured livestock
 - Wolf sign, movements
 - Conflict minimization tools and available resources
 - Broken fences and other pertinent range information
 - General information (including up-to-date vulnerability assessments and potential recommendations for changing practices in an immediate timeframe)
- Communicate between wildlife damage specialists, district wildlife managers, CDA, and livestock owners
- Must understand livestock behavior and husbandry
- Contribute to site assessments when asked
- Must attend end-of-season debriefs with producers and CPW staff to discuss range riding efforts, lessons learned, and areas of improvement

Will Not:

- Doctor Livestock
- Move or manage livestock without direct approval from the livestock owner and range riding supervisor.
- Monitor forage use

Additional Details

Each of the CPW range riders will be hired on as individual purchase orders, not to exceed \$50,000 in one fiscal year. Up to 12 range riders will be hired, to include two per county in areas of past, and potentially upcoming wolf conflict. The counties include Jackson, Grand, Routt, Eagle, Garfield, Pitkin, Summit, Rio Blanco, and Moffatt.



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Gunnison, Lake, Delta, Chaffee, Park, and Mesa counties are locations for range riders for future seasons.

The agency is identifying candidates that local cattle organizations will endorse. These candidates are people that ranchers trust around their cows, have familiarity with the landscape, understand livestock behavior and husbandry, and have their own equipment. A key component of the Range Riding Program is to work together with livestock owners to build trust and communication.

Range riders are expected to ride at least four to five days per week, up to a maximum of 22 days a month for the duration of the on-range season, roughly five months. Riders can exceed 22 days if the additional work is approved by the contract administrator in the event of persistent or increasing conflict. Some riders may be able to stay on through the winter on an on-call basis if there is funding available, they worked well with producers, and there is a need during specific conflict events. This is not guaranteed.

CPW expects riders to provide as much human presence as possible. Human presence is key because riders will not be given access to GPS locations or VHF frequencies. The damage staff and members of the wolf program will work closely with riders to share appropriate information, but range riders will ultimately be supervising cattle and looking for predator sign, not pursuing predators or their locations. Any hazing will be done opportunistically without the use of GPS or telemetry. Range riders will be brought on two weeks before the on-range season and will be required to attend a four- or five-day range rider training course put on jointly by CDA and CPW the last week of April. This course will include livestock husbandry work, wildlife tracking and sign identification, communication skills, and will cover proper hazing techniques. Once completed, riders will be issued potentially injurious non-lethal hazing permits. Night work will likely be a large component of this work especially when conflict is increasing or becomes persistent.

Livestock owners that are interested in hiring riders specific to their operation can contact the NRCS program. This is a USDA program that can provide funding to individual producers to hire their own riders, among other things. If you have more questions about that please contact your local NRCS office or your local CPW damage specialist. The application window is open for one month starting January 10, 2025.

The CPW contact for this program is Max Morton, Wildlife Damage Specialist and Interim Range Riding Program Lead.



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Contact Information:

Max.Morton@state.co.us

(970)-903-1519

Please complete [CPW's Range Rider Interest Form](#) if interested in applying to be a range rider.



Appendix C - Carcass Management

Carcass Management

Best Practices for Reducing Livestock Depredation

Carcass management is a proactive strategy for minimizing livestock-carnivore conflicts by effectively managing attractants like carcasses, bone piles, and afterbirth. While vulnerable animals such as calves and lambs can draw carnivores, managing carcasses, bone piles, and afterbirths may reduce carnivore and livestock interactions, especially in heavily concentrated livestock areas.

Appropriate carcass management strategies may reduce depredation risk, particularly in areas where livestock and carnivores intersect. Implementing the carcass management practices below could reduce the risk of carnivore conflicts and protect your livestock investment.

Good Management Practices

- Temporarily move livestock away from carcasses to reduce conflict risks.
- Consolidate carcasses instead of leaving them exposed. Remove them from heavy livestock areas to a carcass pit.
- Move the carcass to a less dense livestock area and put an electric fence around the carcass to deter predators and scavengers.
- Move livestock away from the carcass if it is not feasible to move the carcass.

Better Management Practices

- Clean up old carcass pits and bone piles.
- Haul the carcass far enough away so the carcass does not act as an attractant to nearby living livestock.
- Remove all dead livestock year-round from wintering and calving areas to prevent predator habituation.
- Bury or fence carcasses away from livestock.
- If burial is not feasible, use electric netting to secure the carcass for isolation.



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Best Management Practices

- Quickly remove carcasses from the landscape, break them down if necessary, and transport them to a landfill.
- Secure or remove old bone piles to prevent scavenger attraction.
- Remove carcasses near calving grounds, water sources, or salt licks.
- Use range riders to locate and manage carcasses in coordination with producers.

To explore carcass management options please contact Dustin Shiflett at 970-702-1222. To view a downloadable one-pager, visit CDA's website [Wolf Info and Resource Links page](#).



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Appendix D - CPW Area Offices and Wolf Contacts

CPW Area Office	Phone
Brush	(970) 842-6300
Colorado Springs	(719) 227-5200
Denver	(303) 291-7227
Durango	(970) 247-0855
Fort Collins	(970) 472-4300
Glenwood Springs	(970) 947-2920
Grand Junction	(970) 255-6100
Gunnison	(970) 641-7060
Hot Sulphur Springs	(970) 725-6200
Lamar	(719) 336-6600
Littleton	(303) 791-1954
Meeker	(970) 878-6090
Monte Vista	(719) 587-6900
Montrose	(970) 252-6000
Pueblo	(719) 561-5300
Salida	(719) 530-5520
Steamboat Springs	(970) 870-3333
USDA Wildlife Services - Golden, CO	(303) 328-9041



CPW Wolf Contacts

Primary Contacts

An initial starting point for engaging CPW regarding concerns over wolf-livestock interactions is the CPW Area and District Wildlife Manager.

Wolf Conflict Minimization

Program works with livestock producers to develop proactive plans as well as assist with preventative materials (fladry, critter getters, fox lights, scare devices) and technical assistance to minimize conflicts with gray wolves including collaborations with CDA and USDA APHIS Wildlife Services.

Name, Title	Duty Station, Contact Information
Adam Baca CPW Conflict Coordinator	North Park (970) 200-9427 Adam.Baca@state.co.us
Ethan Kohn CPW Wildlife Damage Specialist	Eagle (970) 902-7388 Ethan.kohn@state.co.us
Kaycey Ayala CPW Wildlife Damage Specialist	Craig (970) 902-7389 kaycey.ayala@state.co.us
Seth Cook CPW Wildlife Damage Specialist	Fort Collins 720-766-0837 Seth.cook@state.co.us
Max Morton CPW Wildlife Damage Specialist	Gunnison (970) 903-1519 Max.morton@state.co.us
Nickoli Kallman CPW Wildlife Damage Specialist	Durango (970) 903-2288 Nickoli.kallman@state.co.us



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Wolf Program Administration

Eric Odell CPW Wolf Conservation Program Manager	Fort Collins eric.odell@state.co.us
Raymond Aberle CPW - Private Lands For issues related to private land conservation and concerns	Fort Collins Raymond.aberle@state.co.us
Dustin Shiflett CDA Non-lethal Conflict Reduction Program Manager	dustin.shiflett@state.co.us (720) 902-1222
Shelby Neiberger CDA Northwest Non-lethal Mitigation Specialist	shelby.neiberger@state.co.us (720) 614-6361
Jesse Lasater CDA Southwest Non-lethal Mitigation Specialist	jesse.lasater@state.co.us (720) 556-3110