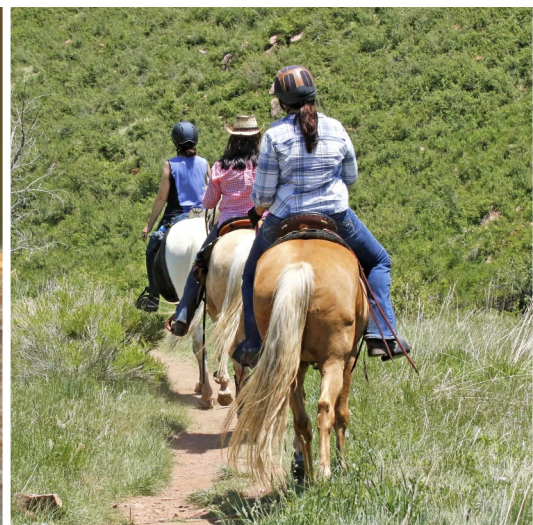




Colorado's Guide to Planning Trails with Wildlife in Mind

Executive
Summary



Developed by the
**Colorado Trails
with Wildlife in Mind
Task Force**

with support by:



in partnership with:



Contributing task force members include those from the following land management agencies:





COLORADO

Parks and Wildlife

Department of Natural Resources

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June 30, 2021

Dear Fellow Coloradans,

Colorado Parks and Wildlife is tasked with providing wildlife management and world class outdoor recreation opportunities. To deliver on this mission it's important to recognize two facts: first, that recreation and conservation goals can often support each other, and second, that partnerships with other organizations and agencies across the state are critical to accomplish those goals. As our population continues to grow and visitation to our public land increases, it's more important than ever to be proactive and intentional with how we plan for recreation to ensure that wildlife still have the habitat they need to thrive.

This need was recognized back in 1997 when a Task Force was convened to draft the first version of Planning Trails with Wildlife in Mind. This guiding document supported land managers over the past two decades as they made decisions about how to best develop and manage trail systems.

The 2021 update to Planning Trails brings the original document up to date, and achieved this through a second collaborative Task Force that exemplifies how we need to conduct this work in order to be successful.

CPW believes that deep, long-term partnerships such as the Task Forces convened to develop these documents allow us to work toward shared objectives and ensure delivery of practical solutions both on the ground and at the 30,000-foot strategic level. We believe that the support of our partners enables us to excel at protecting and caring for our most valued and valuable resources in the state, including the many wildlife species that call Colorado home. Our agency continues to seek out opportunities to support and enhance community-level and region-wide efforts to conserve wildlife habitat and accommodate growing demand for outdoor recreation.

This document can enhance these efforts to find the common ground between local and statewide priorities by providing a shared language, reinforcing the importance of up-front and intentional collaboration, and driving home the understanding that conservation and recreation are mutually beneficial endeavors foundational to our way of life in Colorado.

I want to express my gratitude and thanks to the Trails with Wildlife in Mind Task Force, as well as the CPW staff and other stakeholders throughout the state that were involved in the development of this important document. Now that it's complete, I hope to see it in use as a tool to engage the public, land managers, and all who recreate to support an outdoor ethic that respects both wildlife and people. Above all, I hope that those using this document view it not as an end to this conversation, but a beginning.

Sincerely,

Dan Prenzl



Introduction

Few things are loved more by Coloradans than the outdoors, and there’s no more popular way to access the abundant outdoor opportunities in our state than on a trail. With an ever-growing population, Colorado has entered an era where land managers face escalating pressure to meet recreation demands while maintaining the land’s natural resources.

Trails remain an invaluable tool to meet both recreation and conservation needs.

Well-built trails can provide opportunities for diverse recreation, wildlife-viewing, and improved access for under-served communities. As a management tool, they are effective at guiding human-use away from sensitive areas and into places that will have less impact on wildlife. All trails and trail uses have some impact on wildlife and their habitats, and these impacts must be appropriately considered in order to build sustainable trail systems that balance the current and future needs of wildlife and people.

In 2020, Colorado Parks and Wildlife (CPW) convened a Land Manager Task Force made up of 20 representatives from CPW, federal, and local agency partners across the state to guide the development of *Planning Trails with Wildlife in Mind*. Informed by a recreation and conservation advisory group, and a technical advisory team, the 2021 update to *Planning Trails with Wildlife in Mind*:

1. **Acts as a framework** for how we effectively work together in conservation and recreation, providing direction to get collaborative conversations about trails and wildlife started early, and emphasizing the value of communication and collaboration between, and within, communities.
2. **Improves communication and collaboration** between government agencies regarding trails and wildlife by establishing common language, and by building consensus around best practices.

3. **Provides best practices** grounded in current, relevant science concerning the impact of trails and trail recreation on wildlife, while remaining accessible as an educational tool for readers of all backgrounds.
4. **Offers guidance** to groups advocating for new trail construction or maintenance projects on how to factor wildlife impacts into their plans, serves as a starting point to address wildlife concerns when submitting State Trail Grants, and provides a framework for how to work collaboratively with government agencies to find solutions that balance wildlife and recreation needs.

This document is grounded in the overarching framework of Outcomes-Based Planning, and is organized to reflect the flow through this framework, from identifying outcomes and needs to siting and managing a trail. Chapter 1 describes the importance of building partnerships through collaborative processes, how to engage the public, and strategies to define desired outcomes (Step A). Chapter 2 explores how to identify opportunities for trails and assess the needs of wildlife (Steps B and C). Chapter 3 details the trail management and monitoring practices needed to minimize wildlife impacts after completing trail construction (Step D). The Appendices of this document provide multiple resources, including species-specific best management practices, examples of planning frameworks used in different areas of the state, and an extensive list of scientific literature used as the basis for this document.

Step A. Outcomes: Identify community trail recreational needs, including desired user experiences and related benefits.

Step B. Opportunities and Needs: Identify trail opportunities as well as wildlife needs that may limit trails.

Step C. Siting: Identify the potential trail or trail system sites that could meet needs and opportunities.

Step D. Management: Develop land use plan, management actions, allowable uses, and implementation actions.



Chapter 1. The Collaborative Process

Diverse interest groups need to continue coming together to create strategies that work for wildlife, habitat, conservation, and recreation interests through well-facilitated collaborative processes. An extensive increase in collaboration between wildlife management, regional planning, and recreation interests, especially early on in the process, will result in community buy-in and excitement. It also ensures successful implementation, viable trails for the long-term, and ultimately creates better solutions.

As the first step in the Outcomes-Based Planning framework, this chapter offers recommendations for how to get collaborative trail projects underway, and demonstrates how to best engage the public. The following diagram summarizes the content of this chapter at a high level.

In the long run, intentional and upfront collaboration can lessen time, conflict, and expense.

Process

1. Core Team Formation

- Understand land ownership, adjacent lands, regional planning efforts, and potential unique wildlife concerns.
- At minimum, core team should include project proponents, potential land managers and CPW biologists and field staff.

2. Public Engagement Round 1

- Use a public process that is inclusive, transparent, and meaningful to define desired outcomes & wildlife concerns.
- Note: No lines on the map yet. See outcomes-based planning Figure 1 for more details.

3. Core Team Analysis

- Work in partnership with CPW and potential land managers.
- This is where the bulk of the technical planning is done and where potential lines are drawn for public engagement round 2 review.

4. Public Engagement Round 2

- Use a similar public process that is inclusive, transparent, and meaningful to explore and receive input on potential sites, management options, and the trade-offs.

5. Implementation Partnerships

- Share with the public the final results, including themed public feedback.
- Identify funding sources, secure necessary permits, and building plan.

Results

Relationships and Understanding Context

Define Outcomes & Identify Wildlife Concerns

Siting and Management Analysis

Input on Siting, Management, and Trade-offs

Finalize the Plan and Determine Implementation Steps

Chapter 2. Evaluating Wildlife Needs and Trail Opportunities

This chapter serves to first enhance trail project planners’ and core teams’ understanding of wildlife concerns and limitations, and second to explain how to account for these by implementing Best Management Practices (BMPs) from the Avoid-Minimize-Mitigate framework (see figure).

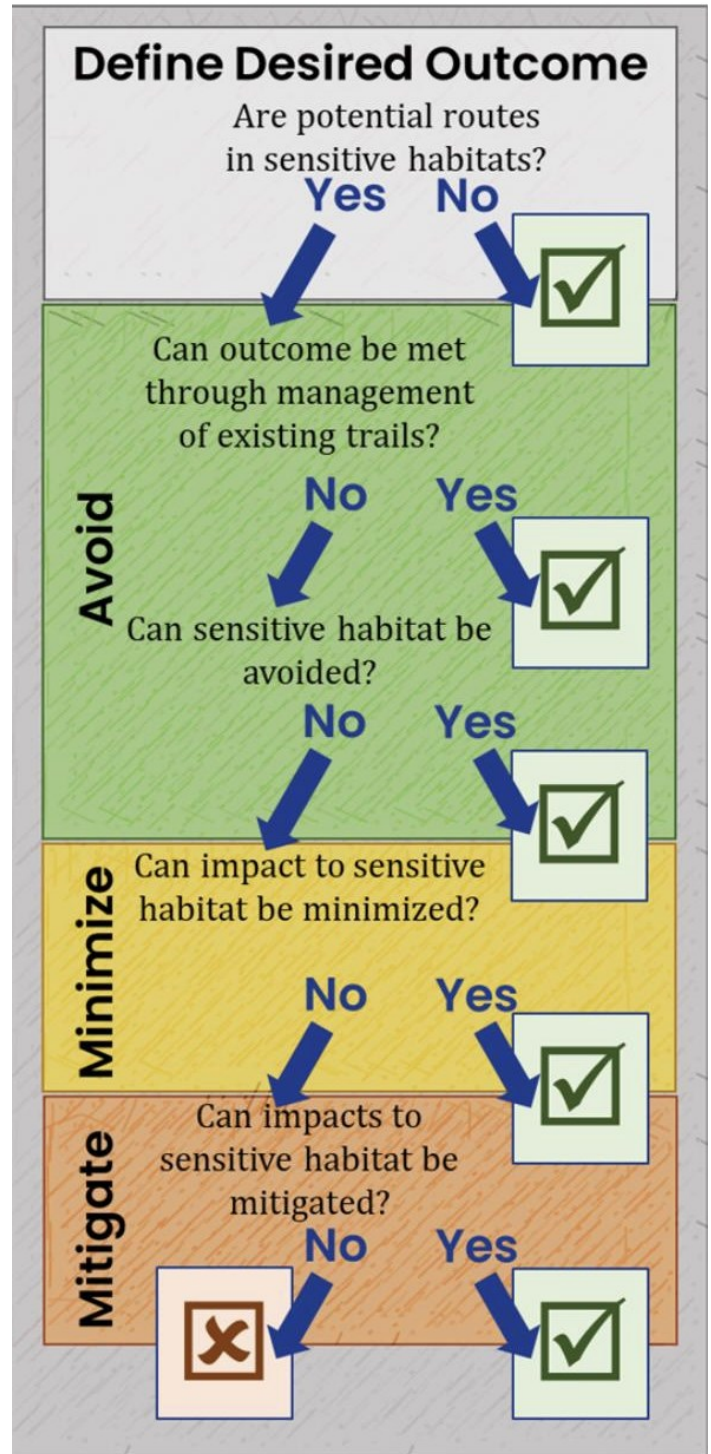
There are no “one size fits all” rules. These BMPs offer effective practices that should be considered and incorporated as appropriate.

Prior to visiting potential trail sites, planning teams should conduct a desktop analysis to understand opportunities for trail alignments that minimize impacts to wildlife and habitat. While the tools used in this analysis are effective to understand large-scale wildlife presence and impacts, they are less effective at a local level and cannot replace consultation with local CPW staff and a site visit to verify habitat and wildlife concerns.

With the context provided by desktop analysis and site visits, a core team will be ready to consider more precise trail alignment options. The BMPs in this chapter and in Appendix A are intended to avoid and minimize adverse impacts to Colorado’s wildlife species and their habitats.

These recommendations are based on peer-reviewed scientific research, and are aligned on a continuum of actions that follow the mitigation hierarchy of Avoid, Minimize, and Mitigate. It’s important to recognize that many trail projects implement BMPs from across the continuum in order to balance the needs of multiple wildlife species.

Finally, human dimensions of natural resource management should be considered during this stage of the planning process. These human dimensions could include, but aren’t limited to, how people want resources managed, how they affect or are affected by natural resource management decisions, and the driving forces behind people’s decisions. Ultimately, the goal is to understand the human relationship to the landscape, the effects of human behavior on the landscape, and how to incorporate this understanding into management planning and actions.





Chapter 3. Plan for Trail Management and Monitoring

Once a decision is made about where to locate a trail, it's time to address management of recreation on that trail.

This chapter, like the others, does not seek to offer a prescription, but instead provides resources, recommendations, and the overall guidance that land

managers need to further protect wildlife through trail management and monitoring.

The figure below provides an overview of specific management actions that can be used to minimize impacts of trails and trail-based recreation on wildlife.

Properly managed and maintained trails can provide safe and appropriate use levels, and can help provide additional capacity for recreation.



Visitor Education

- Clear messaging on signs
- Use volunteer trail ambassador programs to educate users at trailheads or on the trail
- Engage specific user groups through programs such as *Stay the Trail*
- Plan for multiple outreach methods to update info (e.g., social media, website, and trail applications such as COTREX)



Infrastructure, Design, & Maintenance

- Wildlife friendly fencing
- Focus access points to sites of interest
- Gates
- Bear-proof trash receptacles
- Cattle guards
- Weed-free erosion control
- Limit introduction of invasives
- Limit tree and other native vegetation removal / add vegetative barriers as needed



Adaptive Management Techniques

- Trail use counters
- Trail use type tracking
- User surveys



Use Limitations

- Seasonal closures
- Type of use limitations
- Require dog leashing or do not allow dogs



Enforcement

- Install gates and trail cameras
- Increase agency field staff presence
- Use OHV Good Management Crews on motorized routes
- Ensure adequate resources are available for ongoing enforcement
- Coordinate resources for seamless management between agencies when trails cross jurisdictional boundaries

Wildlife Trail Management Types

Actions and Future Directions

With the 2021 version of *Planning Trails with Wildlife in Mind*, the Task Force set out to create a resource for land managers, recreational trails groups, and the public at large, providing guidance on how to develop trail systems that meet recreational needs and address wildlife impacts. Good trail design can enhance the visitor experience, provide opportunities to enjoy the natural world, and minimize impacts on wildlife. By providing sustainable trails for recreationists to enjoy the outdoors, users are more likely to become advocates in efforts to protect our state's natural resources.

This document is not regulatory, nor does it create agency policy, but it does develop a common language and understanding for everyone who is working on trails and wildlife issues throughout the state. It is the intent of the Task Force that this document be used to strengthen the

wildlife review process for the State Trails Program. Additionally, conversations are ongoing with GOCO and the Regional Outdoor Partnerships about how this document could be used to benefit their grant and collaborative processes.

As this document is rolled out for use, new challenges will arise, new science will be published, and Colorado will change. For these reasons, we will look for opportunities to update recommendations and provide new resources to ensure this document remains useful for years to come. While we recognize that the future of recreation and conservation in our state may at times be unclear, we are confident that the work of supporting people and wildlife will be most effective when we recognize that these goals support each other.

The most important thing is getting rid of the myth that increasing visitors and protecting resources are incompatible. That belief actually hinders creative applications that could meet both goals – allowing public access and protecting resources simultaneously.”

Dale Blahna, former USFS Research Social Scientist



10 Key Takeaways

1. Start early in collaborations with agency partners and diverse stakeholders, including both conservation and recreation advocates.
2. Wildlife and trails are critical to the enjoyment of the outdoors and Colorado's way of life, protecting both is not only possible, but necessary.
3. All participants wildlife concerns and recreation needs should be understood and voiced.
4. Start with an outcomes-based planning process: design with the end in mind.
5. Well planned trails help manage human beings on the landscape and minimize the impact on wildlife.
6. Use desktop analysis and ground truthing in the field to best understand the trail area, wildlife, and habitat.
7. For best landscape-level results, connect with larger regional planning efforts, such as the Regional Outdoor Partnerships.
8. Recognize that research and monitoring offer updated best practices as the context on the ground often changes.
9. Sound management of existing and new trails is fundamental to reducing impacts to wildlife.
10. By providing sustainable trails to enjoy outdoor experiences, users are more likely to become advocates in efforts to protect Colorado's natural resources.

Planning Trails with Wildlife in Mind is a powerful tool that provides land managers a decision making framework to assist in decisions supporting both trails and wildlife. As Colorado's population continues to grow, and more people pursue trail-based recreation, this document will help us chart a collective path forward that honors our state's conservation ethic while managing recreational demands. As the Town of Breckenridge envisions the next 10 years of its open space protection goals, balancing the preservation of wildlife habitat with an evolving and diverse trail network is fundamental to our success. This resource will help us achieve this vision.

Scott Reid, Director of Recreation, Town of Breckenridge

As our state grows, more and more people are getting outdoors to enjoy our beautiful public lands, wildlife, water and scenery. Increased visitation generates a demand for more outdoor opportunities and trails that impact wildlife and natural resources. This guide was collaboratively developed by federal, state and local public land managers to address this pressing challenge. It identifies best practices and processes for planning, developing and managing trails to lower their impacts on wildlife and habitat. It is a valuable resource for all of us as we seek to provide high quality trails and outdoor experiences while protecting Colorado's wildlife.

Tom Hoby, Director, Jefferson County Open Space

Trails are a quintessential Colorado experience, from those that traverse our fourteeners to those inviting us out our backdoors. Colorado's wildlife is equally revered and this document provides a great first step in guiding communities to find an appropriate balance between outdoor recreation and conservation. With this tool, GOCO's partners across Colorado can better plan projects and ultimately find greater success in the grant application process by understanding the wildlife impacts of trail development and mitigating as necessary. I applaud the work of Colorado Parks & Wildlife and the countless contributions of time and energy from the task force and advisory group members to arrive at this end result.

Chris Castillian, Executive Director, Great Outdoors Colorado

To view the full report, go to:

<https://cpw.state.co.us/aboutus/Pages/Planning-Trails-for-Wildlife.aspx>

