

February 16, 2022

Colorado General Assembly
House Transportation & Local
Government Committee
200 E Colfax
Denver, CO 80203

CC: Department of Natural Resources Executive Director Dan Gibbs, Colorado Parks and
Wildlife Director Dan Prenzlow

Chairman Exum and Members of the Colorado House Transportation and Local Government
Committee,

We, the undersigned organizations, write to you on behalf of tens-of-thousands of Colorado conservationists, hunters, anglers, and outdoor enthusiasts. We do so to share our position on Colorado House Bill 22-1104 – Powerline Trails. We oppose this bill as introduced for reasons described below, however, if amended according to amendment HB1104_L.002 the undersigned organizations would be neutral on the amended bill. Amendment HB1104_L.002 would require any public entity to consult and coordinate with the Division of Parks and Wildlife to minimize adverse impacts to High Priority Habitat during the design and construction of a powerline trail. We believe such an amendment is required to avoid the deleterious impact some trail locations and design may present to wildlife, and we appreciate the effort made by bill sponsors, committee members, state agency staff, and other organizations to develop this favorable amendment.

Biologists are increasingly concerned about the impact of recreation on wildlife and wildlife habitat. These issues are particularly acute for threatened and endangered species and for migratory species that require large unfragmented habitat, such as deer and elk. Extensive scientific research shows how important intact and connected landscapes are to sustaining healthy wildlife populations and demonstrates how sensitive many species are to trail related human disturbances. Recreational trail activities can create disturbances that alter wildlife behavior and results in the avoidance of habitat of over 1000 meters from trail systems in some cases. This compression and fragmentation of available habitat is a form of habitat loss that has led to precipitous declines in reproductive success rates and population numbers of several of our elk herds in Colorado.

In Appendix 1 attached you will find summaries of and excerpts from studies and articles written about documented impacts to wildlife from increased recreation and disturbance. One such story explains that “‘It’s not like these elk walked up and over another hill to another unit,’ says [longtime Eagle Valley biologist for Colorado Parks and Wildlife Bill] Andree. ‘They just don’t exist anymore. They’re dead.’ *Why?* Increased recreation, Andree says. Increased mountain biking and hiking and dog walking in the spring, summer and fall and increased skiing and fat biking and snowshoeing in the winter. Coupled with diminishing habitat, this could mean the end to the herd.” Many Coloradans are now all-season outdoor recreationists, so it’s critical that

recreation is managed to prevent irreversible loss of habitat and the associated ecosystem health and diversity.

In planning powerline trails, meaningful public engagement and transparency in the process will decrease the likelihood of trails and trail systems having irreversible consequences to wildlife, or impacting other land users and landowners. For this reason, we also believe additional language should be added to notify the public and inform adjacent landowners of proposed powerline trails projects (beyond listing projects on transmission corridor owners' websites, or on other websites that members of the public don't normally visit).

Coloradans, and the 80 million people who visit each year, love wildlife and wild areas. We also love outdoor recreation. It is becoming increasingly clear however that outdoor recreation can rapidly compromise or jeopardize wildlife populations and their habitat. To preserve the wildlife that we are all blessed with it is necessary that we use the best available science to manage the location, volume, and timing of different recreational activities across the state and in some cases prohibit certain recreational activities and infrastructure. Amendment HB1104_L.002 would ensure trained wildlife professionals in Colorado Parks and Wildlife are a part of the planning process, therefore we endorse this critical addition. We thank you for considering this important amendment and our perspective on the matter.

Sincerely,

Members of the Colorado Wildlife Conservation Project



Appendix 1.

In this appendix we highlight some of the contemporary research regarding recreational impacts to elk, and how that applies to a broader set of species.

The September 2019 issue of Science Findings, a publication of the US Forest Service's Pacific Northwest Research Station, summarizes some of the impact to elk in [Seeking Ground Less Traveled: Elk Responses to Recreation](#). The summary reads in part:

“Recreation management requires balancing opportunities for people to enjoy the outdoors with mitigating the effects on wildlife and other natural resources. Recreation and wildlife managers grappling with these issues asked Forest Service scientists to quantify the impacts of motorized and nonmotorized recreation on elk.

A large fenced area within the Starkey Experimental Forest and Range in eastern Oregon provided a unique setting for assessing how a wide-ranging species like elk respond to four types of recreation. Real-time data recorded by telemetry units worn by people and elk alike allowed scientists to establish a cause-effect relationship between human movements and activities and elk responses. Scientists found that elk avoided areas where humans were recreating. This avoidance resulted in habitat compression. All-terrain vehicle use was most disruptive to elk, followed by mountain biking, hiking, and horseback riding. When exposed to these activities, elk spent more time moving rather than feeding and resting.”

This study quantified the impact of recreationists on trails to elk and elk habitat, specifically the large distances from trails that elk retreated to and the large distances where a flight response would be initiated. The Science Findings article stated:

“The study results confirmed what the scientists suspected—elk are quite sensitive to the presence of humans. The animals clearly shifted long distances away from recreationists and moved farther out of view as human activities moved along the trails. They avoided not only recreationists but also the trails associated with their activities. Their intolerance (as indicated by the distances they maintained) was highest for ATV riding, followed by mountain biking. To a lesser degree, the elk also avoided hikers and horseback riders.

“We saw that their flight response occurred at distances over 1000 meters (3,218 feet) for ATVs and close to that for mountain bikes, and more like 500 to 750 meters (1,640 to 2,460 feet) for horseback riding and hiking,” [Dr. Michael] Wisdom says.

The distances elk kept from recreationists (1,830 to 2,880 feet) were two to four times farther than the distances they kept from trails (780 to 1,020 feet) and well beyond 980 feet, the maximum distance from which they could be seen by people.”

Two key land management implications from the article addressed the deleterious impact to elk and to private landowners:

“When elk avoid recreation trails and recreationists, their habitat is compressed. This is a form of habitat loss, similar to the well-documented effects of forest roads and traffic on elk and other wildlife.

Habitat compression on public land can lead elk to move to private land. This reduces elk hunting and viewing opportunities on public land, two of the most popular forms of recreation.”

While recreational trails lead to habitat loss and compression, this is particularly acute in elk production (calving) areas during calving season, approximately May 15 to July 1. Human disturbance in elk calving areas has been shown to have a severe impact on elk calf survival rates. A [CSU study](#) performed in the Vail area observed that elk calf/cow ratio plummeted by nearly 40% as a result of simulated recreation use in elk calving areas. Reproduction levels during the treatment period were determined insufficient to maintain a stable elk population. The [second half of the study](#) involved removing the human disturbance component. With the human disturbance removed the calf/cow ratios rebounded to their pre-treatment levels.

The studies above together show the deadly consequences of trail-based recreation in elk calving areas. The Oregon study shows the disturbance width from a specific form of recreation, while the Vail calving study shows the cost of each disturbance in mortality rates of calves, approximately 5% per disturbance.

This impact is not theoretical. The impact of trail-based recreation to elk has been documented in numerous forums. It is believed to be a major contributor to the precipitous decline in the elk population in Eagle County. The article [Resort Town Blues](#) from Backcountry Hunters and Anglers (BHA) reads:

“CPW biologists who regularly counted more than 1,000 head of elk from the air now see only a few dozen. A unit that offered 490 cow licenses in 2010 went to only 30 in 2018 and almost none in 2019. Archery tags that were once over-the-counter were also eliminated.

“It’s not like these elk walked up and over another hill to another unit,” says [longtime Eagle Valley biologist for Colorado Parks and Wildlife Bill] Andree. “They just don’t exist anymore. They’re dead.”

Why?

Increased recreation, Andree says. Increased mountain biking and hiking and dog walking in the spring, summer and fall and increased skiing and fat biking and snowshoeing in the winter. Coupled with diminishing habitat, this could mean the end to the herd.”

This observation is backed-up by a [Rocky Mountain Wild study performed by landscape ecologist Paul Millhouser](#) on the declining elk population in the Roaring Fork and Eagle valleys. The Aspen Times reported on his presentation at the Naturalist Nature speaker series:

“Colorado Parks and Wildlife started issuing fewer hunting licenses in 2005 for elk in the game units covering the two valleys. That followed five years of steep declines in elk population and an increase in hunting licenses in 2000. But in general, the number of hunters has remained relatively stable, Millhouser said.

But what has changed is the number of people recreating on public lands, both winter and summer, he said. Mountain bikers clamor for more trails. Backpackers hit popular routes in droves and forced the U.S. Forest Service to set limits at the Conundrum Hot Springs and consider limits on the popular Four Pass Loop southwest of Aspen. Larger and more powerful

snowmobiles and dirt bikes reach farther into the backcountry on a tank of gas. The surge in popularity in backcountry skiing and snowboarding lures people into places that were formerly left to wildlife.

More recreation restricts access to habitat. "There's more people there, (so) the elk don't want to be there," Millhouser said.

The result has been a drastic drop in the reproductive success of elk. Generally speaking, an elk herd needs a ratio of nearly one calf per two cows to grow. The calf/cow ratio in the two valleys has been less than 0.48 every year since 2004 and all but two years between 2000 and 2018, according to CPW estimates.

While the above studies focus on elk, the impacts to trail-based recreation extend to a multitude of species. The BHA article reads:

"Courtney Larson, a conservation scientist at The Nature Conservancy in Lander, Wyoming, recently completed her graduate work at Colorado State University with two papers showing the cumulative effect of human recreation.

"We found about 70 percent of the studies that we looked at documented negative effects of recreation on wildlife," she says. "But within that there's a ton of variability."

Published in the journal Conservation Science and Practice, her research analyzed about 275 papers from across the globe, focusing on dozens of species. What she found was that over 93 percent of peer reviewed articles showed recreation affected wildlife, and almost 60 percent of the time the effect was negative."

This is reflected in a comprehensive report "[Sustaining Wildlife With Recreation on Public Lands: A Synthesis of Research Findings, Management Practices, and Research Needs.](#)"

Published by the Department of Agriculture. This report highlights the impact of recreational disturbance to a multitude of species, including invertebrates, reptiles, birds, mammals, and fish. The impacted species list is over two pages long, two columns per page. The report also includes best practices in analyzing and mitigating the impacts.

This aligns with the research performed by US Forest Service scientist Dr. Michael Wisdom in his [presentation to the Routt Recreation and Conservation Roundtable](#). There he describes impacts to a large number of species and the sophisticated techniques that can be deployed to analyze and mitigate the impacts. This aligns with the type of analyses that would be performed by CPW under the proposed amendment.

Colorado is blessed to be home to more than 960 species of wildlife. However, unmanaged recreation now threatens the survival and health of many of these species. It is essential that we use best available science to preserve our wildlife and wild places for generations to come.