



# COLORADO

## Parks and Wildlife

Department of Natural Resources

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### Colorado Parks and Wildlife State Trails Program- Non-Motorized Grant Cycle 2022-2023 Southwest Region Grant Application Review

There are twelve (12) Non-Motorized grant applications within the Southwest Region requesting funding from the State Trails Program for the 2022-2023 process. These applications were sent to the CPW Area Field Staff (Area Wildlife Managers, District Wildlife Managers, and Biologists) for review and comment. In addition, the comments were reviewed and discussed by SW Region Staff including Regional Manager Cory Chick, Deputy Regional Manager Matt Thorpe, Regional Land Use Coordinator Peter Foote, and Regional Trails Coordinator Josh Stoudt.

The background information provided below is not intended to be comprehensive discussion on the best available science regarding trail development, trail use, and the subsequent impacts to wildlife. It is, rather, a brief overview of the wildlife management issues CPW Staff considers when evaluating the individual trail grant proposals with the intent to inform and educate the Statewide Trail Committee members and trail grant applicants. Additionally the newly released Planning Trails with Wildlife in Mind should be referenced and incorporated into trail planning and stewardship implementation. Finally, individual grant comments and CPW Staff recommendations are detailed below.

#### **Background information on trail-related impacts to wildlife**

Overall, the public and trail users are poorly informed on the potential impacts of non-motorized trails on wildlife, and how those impacts can manifest themselves into complex management issues for CPW. A recent study found that approximately 50% of recreationists felt that recreation was not having a negative effect on wildlife. Furthermore, recreationists tend to blame other recreation groups for adverse impacts to wildlife rather than themselves.

Big Game winter habitats and migratory corridors are known to be limiting factors on big game populations in western Colorado and other high mountain areas of the western United States (Sawyer et al. 2009, Bishop et al. 2009). The protection and conservation of mule deer and elk winter range habitat is one of the foremost management objectives for CPW. These habitats are important for a variety of reasons, including:

1. Deer and elk tend to concentrate at lower elevations during winter months as snow accumulates at higher elevations.
2. Mule deer and elk typically display strong site fidelity to winter range, preferring to use the same areas year-after-year. CPW maps these areas as winter range, severe winter range and winter concentration areas for elk and deer.
3. Winter habitats for big game provide essential forage and thermal cover to help mule deer and elk minimize energy expenditure. Mule deer and elk are in a nutritional negative energy balance during the winter months, making energy conservation critical for calf and fawn survival and adult female reproductive fitness.



## **Trail Use Impacts**

Outdoor recreation associated with trails influences a variety of wildlife species in multiple ways. Impacts to wildlife from trail use are often negative and are associated with increased direct disturbance and displacement from optimal habitat due to the avoidance of human activities (Larson et al 2016). Elk and deer increase their daily activity levels and movements in the presence of mountain biking and hiking which reduces the time spent feeding and resting (Naylor et al 2009, Wisdom et al. 2004). This increased energy demand occurs simultaneously with decreased forage intake and displacement to areas with poorer quality forage. The net result is a decrease in body condition, which affects individual health, survival and reproduction (Bender et al 2008). Higher energy demand effectively decreases the carrying capacity of an area (Taylor and Knight 2003) and increases stress on individual animals. Many wildlife species also avoid areas of human disturbance completely, which decreases the amount of available habitat (Taylor and Knight 2003). Elk and deer generally do not become habituated to hiking or mountain biking (Wisdom et al. 2004, Taylor and Knight 2003). Cumulatively, this leads to both immediate and long-term effects on individual animals and populations by decreasing the available energy for winter survival, growth, and reproduction, reducing the fitness of wildlife, and by displacing wildlife into marginal habitats (Miller et al 2001, Anderson 1995).

There is a large body of evidence documenting displacement of big game from roads and trails (including non-motorized trails) and a decline in habitat effectiveness from big game as road and trail densities increase (Wisdom et al. 2018, Ciuti et al 2012, Rogala et al. 2011, Phillips and Alldredge 2000, Preisler et al. 2013). The presence of a dog with a recreationist is likely to result in a greater area of negative influence from trail use, including amplified avoidance distances of mule deer movements (Miller et al 2001).

**2021-2022 Non-Motorized Grant Comments:** The following are grant specific comments received from CPW Wildlife staff.

No wildlife specific comments were received on the following applications:

#2 Weminuche Trail

#5 Mapping Trails with LIDAR DATA

#6 Shavano Gateway Recreation Area

#7 Crested Butte Conservation Corps

#19 Colorado 14ers Statewide Maintenance Program 22-23

#23 WRV Partnership for Trail Stewardship 2023

#30 Bakers Park Trail System

#31 2023 GFO Non-Motorized Trail Crew

#35 Miners Trail

#49 Baca NWR Nature and Heritage Trail

Wildlife specific comments on the following applications:

*#10 Rio Grande Southern Dolores Placer Connection:* After reviewing the grant submission CPW has the following comments that we would like to see included with the grant application:

- Incorporate a bridge design that allows for the passage for wildlife during high water events. This would be accomplished by designing the bridge high enough and the support pylons far enough out of the water that river otters and other animals do not have to leave the safety of the water or the water's edge (high water mark) to pass through the proposed bridge. The height of the bridge should also allow for the passage of watercraft floating the river during high water events.
- Trail alignments should avoid riparian areas and the removal of riparian vegetation should be avoided, to the greatest extent possible, during the construction of the bridge.

*#42 Historic Monsoons Trail Damage Maintenance:* The Southwest Region appreciates San Luis Valley Great Outdoors (SLV GO!) application's scope of addressing maintenance caused by the monsoons. The area that the work would happen in is across the San Luis Valley and a portion of that work area, Ute Creek trail and Highline Trail, falls within Game Management Unit (GMU) 76, a high-quality hunting area that is a challenging hunting tag to draw. With GMU 76 in mind and the work that will fall within it, the Southwest Region asks:

- Attempt to have all work completed by August 31st. We would like to remind SLV GO! that archery hunting season starts the beginning of September and muzzleloader starts September 10th this year.
- If completion of work by August 31st is not possible, work at higher elevations of these trails should be completed as early as possible and work after August 31st should be focused to the lower 1/3 of the trails.

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