



COLORADO

Parks and Wildlife

Department of Natural Resources

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TO: State Trails Committee

FROM: Colorado Parks and Wildlife Southwest Region Staff

SUBJ: Colorado the Beautiful Southwest Region Grant Application Review

DATE: October 17, 2019

There are two (2) Colorado the Beautiful grant applications within the Southwest Region requesting funding from the State Trails Program for the 2019 process. These applications were sent to the CPW Area Field Staff (Area Wildlife Manager and District Wildlife Manager) for review and comment. In addition, the comments were reviewed and discussed by SW Region Staff including Regional Manager, Cory Chick, Deputy Regional Manager, Heath Kehm, Regional Trails Coordinator, Josh Stoudt, and Regional Land Use Coordinator, Brian Magee.

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. In addition, the 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 (Taylor and Knight 2005).

Big Game winter habitats and migratory corridors are known to be limiting factor 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, Bartman et al. 1992). Southwest Region mule deer populations are down approximately 5-15% from population objectives. In some populations, such as the Uncompaghre, the population objective is down nearly 45%. The protection of mule deer winter ranger habitat is one of the foremost management objectives in the recently developed *Colorado West Slope Mule Deer Strategy* (2014). 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 ranger, 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 trail influence 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 habitats due to avoidance of human activities. 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).

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 by wildlife (Miller et al 2001).

Grant Comment

#9-SW-Paths to Mesa Verde Plan- This is a planning grant looking to create planning and engineering for 7.5 miles of barrier free concrete pathway layout to extend from the Town of Mancos to the entrance to Mesa Verde National Park. This grant request is looking at phase one of a two phase project and is being led by Montezuma County. The overall build out of this two phase project is to create 16 miles of non-motorized trail to link Mancos and Cortez with Mesa Verde National Park in the mid-point and offering public land access along the way.

CPW was involved early in this project and the discussions during the process. CPW staff brought up concerns on the project requiring installation of more fencing that would limit wildlife movement along the Highway 160 corridor. The other topic of concern was wetland areas and how the trail was going to cross over them.

The grantee stated in their application that the final route is "located 100% within existing CDOT ROW." The applicant followed up by stating "this alignment will reduce loss of habitat, require no new fencing, and utilize an existing stream crossing, thereby lessening the overall impacts to wildlife."

CPW staff greatly appreciates the inclusion of these comments into the grant application and is thankful these concerns were addressed.

#11-SW-Divide RD Sustainable Recreation Plan (United States Forest Service)- This planning grant is looking to identify lessons learned from other areas that have seen similar recreational growth and apply it to the Divide Ranger District in the Rio Grande National Forest. The District, per their grant scope, is going to "characterize the baseline recreation use and infrastructure (including trails, trailheads, and dispersed campsites); identify and prioritize locations vulnerable to increased recreation use based on current and foreseeable resource impacts and user conflicts; identify actions to mitigate resource impacts, chart the National Environmental Policy Act compliance pathway, and identify funding opportunities; and identify and develop public education and outreach messages, identify outlets and specific mechanisms to share these messages."

Local CPW staff recognizes the information this grant will produce value for planning recreation activities for the future in the area. From the aspect of motorized use, CPW staff perceives a substantial benefit of this project happening by having it completed prior to the Forest Service undergoing their planning cycle for motor vehicle use.

Off-highway vehicle (OHV) use is a popular recreational activity in the Divide Ranger District. While completing this project, CPW staff also suggests looking at identifying and inventorying areas of historic prohibited OHV use and solutions to prevent and mitigate these incidents from happening.

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