



# COLORADO

## Parks and Wildlife

Department of Natural Resources

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### Colorado Parks and Wildlife State Trails Program- Non-Motorized Grant Cycle 2019-2020 Southwest Region Grant Application Review

There are a total of seven (7) Non-Motorized grant applications within the Southwest Region requesting funding from the State Trails Program for the 2019-2020 process. These applications were sent to the CPW Area Field Staff (Area Wildlife Managers and District Wildlife Managers) 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 Land Use Coordinator, Brian Magee, 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. 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). 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 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 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, Wisdom et al 2018, 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, Preisler et al. 2013, Sawyer et al., 2013, WAFWA 2013, Rogala et al. 2011, Wilber et al. 2008, Rowland et al. 2005, Rowland et al. 2000, Phillips and Alldredge 2000). 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).

## **2019-2020 Non-Motorized Grant Comments**

The following summary are grant specific comments received from CPW Wildlife staff.

No Wildlife Comments were received on the following applications:

#01 Ohio Avenue Safe Walk Construction

#14 Partnership for Stewardship 2020-2022

#15 San Juan 14ers Trail Reconstruction

#18 Boggy Draw Trail Maintenance

#19 Project Raghorn

## Grant Comments

#5 Pagosa Regional Trail Connection- This project is for the construction a footbridge across the Village Lake dam adjacent to North Pagosa Boulevard and additional trail access. The proposal includes the construction of a new hard surface path to connect to existing routes in the project area.

The proposed trail site has already been developed and lies in an area of residential homes as well as a major roadway, thus the surrounding area and wildlife habitats have already been disturbed and altered by human development. Therefore, any additional or long-term impacts to wildlife from the trail are minimal.

The completion of the proposed project might enhance motor vehicle safety by providing a path for animals (deer) to cross the dam away from the roadway. CPW staff is encouraged to see the grant include two wildlife interpretive signs due to the numerous waterfowl and migratory birds that can be found in the area.

#23 Ridgway Area Trails Regional Trail Plan- The Ridgway area mountain bike club is looking to prepare a regional trail plan that will focus on the assessment of potential, non-motorized, single-track, multi-use trail opportunities in Ouray County and the surrounding area. It will be consistent with United State Forest Service and other involved agency's land use plans and will produce; maps of conceptual trail locations, area descriptions, resource issues, trail design features, wildlife concerns and implementation/maintenance plans.

CPW Area and Regional Staff appreciate the coordination and early discussions with the Ridgway Area Trails Organization about this proposal. CPW staff encourages continued communication during the development of the Regional Trails Plan especially within the wildlife section and during the public comment period.

CPW requests to have the most inclusive public comment process as possible. CPW encourages the project proponent to include a robust solicitation of interested stakeholders. CPW staff is available to brainstorm the possibility of conducting this type of outreach.

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