



COLORADO

Parks and Wildlife

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Vicki Christiansen, Chief
United States Forest Service
c/o Penny Wu, Recreation Staff
1400 Independence Avenue SW
Washington DC, 20250-1124

Submitted electronically

RE: USDA Forest Service Guidance and Management of E-Bikes on National Forest System (NFS) Lands

Dear Chief Christiansen,

On behalf of the state of Colorado and the Colorado Department of Natural Resources, Colorado Parks and Wildlife (CPW) appreciates the opportunity to provide input on the USDA Forest Service's proposed revision of directives to clarify guidance on the management of e-bikes on National Forest System (NFS) lands. In support of our mission to perpetuate wildlife resources, ensure a quality state parks system and quality outdoor recreational experiences, CPW works closely with federal land management agencies to conserve our state's natural resources and provide safe, accessible and sustainable recreation experiences for Colorado's residents and visitors.

Both human-powered and electric bicycle (e-bike) use represent growing segments of the variety of recreational use on public lands in our state. Recognizing the importance of this fast-moving sector, the Colorado General Assembly passed legislation in 2017 to bring statutory clarity and consistency to the management of e-bike use on state lands within Colorado (CRS 41-1-102). The law provides the following definition which excludes e-bikes from the definition of off-road vehicles, and establishes a three-tiered classification system for e-bikes:

(28.5) "Electrical assisted bicycle" means a vehicle having two tandem wheels or two parallel wheels and one forward wheel, fully operable pedals, an electric motor not exceeding seven hundred fifty watts of power, and a top motor-powered speed of twenty miles per hour.

(a) Class 1 - electrical assisted bicycle equipped with a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the bicycle reaches a speed of twenty miles per hour.

(b) "Class 2 electrical assisted bicycle" means an electrical assisted bicycle equipped with a motor that provides assistance regardless of whether the rider is pedaling but ceases to provide assistance when the bicycle reaches a speed of twenty miles per hour.



(c) "Class 3 electrical assisted bicycle" means an electrical assisted bicycle equipped with a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the bicycle reaches a speed of twenty-eight miles per hour.

Since its adoption, this system has allowed state agencies to streamline guidelines for e-bike use on state lands, resulting in the expanded accessibility of recreational opportunities and reduced conflict between e-bike and other recreational user groups on roads and trail systems. The input below draws upon CPW's early experience in applying Colorado's e-bike law within the 42 units in Colorado's state park system.

E-bikes have significantly expanded access to recreational opportunities in our state. Advances in battery and motor technology have made some e-bikes virtually indistinguishable from traditional mountain bikes in terms of size and shape, which makes it difficult to enforce regulations for the different classes of e-bikes. For these reasons, CPW supports the proposal to allow USDA National Forest Districts to determine through site specific NEPA analysis, if and where e-bikes should be allowed on currently designated non-motorized trails.

Evaluating e-bike impacts on wildlife

E-bikes represent an emerging technology for which research to document impacts of their usage on particular landscapes or resources is scarce. There is currently little science documenting potential impacts such as increased conflict between user groups, damage to trails, or impacts to wildlife or habitat, as compared with traditional mechanized travel (e.g. mountain bikes). However, there is strong evidence published in the literature describing the ecological impacts from traditional mountain bike use on roads and trails (e.g., Trombulak et al 2000; Hebblewhite 2008) that can be used to extrapolate baseline impacts to wildlife from e-bike use.

Impacts to wildlife from trail use are often negative and are associated with increased direct disturbance and displacement from optimal habitat (Larson et al. 2016). Avoidance of human activities associated with roads and trail based recreation (ATVs, mountain biking and hiking), can lead to increased daily activity levels and movements which reduces the time spent feeding or resting (Cuiti et al 2012, Naylor et al 2009, Wisdom et al 2004). This increased energy expenditure, decreased forage intake, and displacement to areas with poorer quality forage results in a decrease in body condition, which affects individual health, survival and reproduction (Bender et al 2008, Johnson et al 2004).

Wildlife's tendency to avoid recreationalists effectively decreases the carrying capacity of an area (Taylor and Knight 2003). Contrary to popular opinion, elk and deer generally do not habituate to hiking or mountain biking (Wisdom et al 2004; Wisdom 2018; Taylor and Knight 2003). Cumulatively, increased human activity associated with increased density of roads and trails leads to both immediate and long-term effects on individual animals and populations by decreasing the available energy for winter survival, growth, reproduction, reducing the fitness of wildlife, and by displacing wildlife into marginal habitats (Cuiti et al 2012, Anderson 1995).

Mountain biking has been shown to both increase movement rate and flight distance by ungulates near trails (Brillinger et al. 2004, Taylor and Knight 2003, Wisdom et al. 2004). Fat bikes are mountain bikes designed to ride over the snow, and elk will react to fat bikes in the

same manner as mountain bikes. Wisdom et al. (2004) found that the probability of elk fleeing from mountain bike disturbance was more closely related to motorized disturbance than hiking disturbance. Elk have been shown to flee over 1,500 meters from both mountain bike and motorized disturbance (Wisdom et al. 2004). Compared to other trail uses, mountain biking and motorized recreation cause elk to have the greatest reduction in feeding time and increase in fleeing time, directly resulting in net loss of energy (Naylor et al. 2009).

Summer habitat is especially important for wildlife species in recovering from winter weight loss, birthing and rearing of the young, building fat reserves for the coming winter, and maintaining movement and connectivity between diurnal and seasonal habitats. With regard to ungulate survival, it has been shown that reserves accumulated during summer months are critical to winter survival for deer (Parker, et al. 1999) and forage intake and nutritional quality during August and September can determine winter survival for elk calves (Cook et al. 1996).

Future research and monitoring are necessary to help determine the extent of wildlife and resource impacts from e-bike use on public lands. E-bike pose a unique management challenge because they allow a broader range of users to cover greater distances than was previously possible with traditional mountain biking. By facilitating increased access to remote backcountry settings and to more challenging terrain, e-bikes have the potential to significantly impact wildlife resources in areas that are currently protected from such levels of disturbance.

Because of this potential for expanded use and broader impacts to wildlife and habitat, CPW encourages the USDA Forest Service to implement an adaptive management strategy informed by empirical evidence and *in situ* management experience, and adopt a conservative approach when establishing directives and weighing the potential impacts of e-bike recreation on the landscape.

USDA Forest Service e-Bike Definition and Classification- FSM 7700

CPW supports the USDA Forest Service's proposal to incorporate new definitions for "bicycle", for "electric bicycle (e-bike)" which includes electric mountain bikes (eMTB), as well as the three classes of e-bikes, "Class 1 e-bike," "Class 2 e-bike," and "Class 3 e-bike", as follows:

7705 - DEFINITIONS

Bicycle. A pedal-driven, solely human-powered device, with two wheels attached to a frame, one behind the other.

Electric Bicycle (E-Bike). Also referred to as an electric mountain bike (eMTB), a type of motor vehicle with two wheels attached to a frame, one behind the other, equipped with fully operable pedals and an electric motor of less than 750 watts that meets the requirements of one of the following three classes:

- a. *Class 1 E-Bike.* An e-bike equipped with a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the e-bike reaches the speed of 20 miles per hour.

- b. *Class 2 E-Bike.* An e-bike equipped with a motor that may be used exclusively to propel the e-bike and that ceases to provide assistance when the e-bike reaches the speed of 20 miles per hour.
- c. *Class 3 E-Bike.* An e-bike equipped with a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the e-bike reaches the speed of 28 miles per hour.

The three-tiered classification system proposed here is consistent not only with the DOI, but also with the system adopted by statute by the Colorado General Assembly in 2017 [CRS 42-1-102 (28.5)], as well as 26 other States. If formalized, a definition common to state and federal agencies will minimize confusion amongst the public and allow for more streamlined e-bike management across land designations.

USDA Forest Service e-Bike Travel Planning Criteria- FSM 7710

CPW understands that the Forest Service does not intend to remove e-bikes from the classification of motorized vehicles, but rather identifies e-bikes as one of eight categories to identify classes of motor vehicles and proposes to incorporate new criteria to facilitate designation of Class 1, 2 and 3 e-bikes on NFS trails, NFS roads, and in areas on NFS lands. CPW asks that you consider how this approach can best align with Colorado and other State statutes, as well as Department of Interior classifications for e-bikes, to minimize confusion amongst public users and provide consistency across public land management designations.

7711.3 - MVUMs and OSVUMs

CPW cautions against applying distinct management approaches for specific classes of e-bikes, as referenced in *7711.3(g) Trails Open to E-Bikes Only (Class 1, 2 and/or 3)*. This would imply the specific allowance of those being exclusively operated by a motor (Class 2), or those that are operated as pedal-assisted (Class 1 and 3). Advances in e-bike design have made some e-bikes difficult to visually differentiate from traditional bikes, and even more difficult to differentiate between classes of e-bikes. In CPW's experience, attempting to manage e-bikes within their classes introduces unnecessary confusion to users and has the potential to significantly complicate land managers' abilities to enforce regulations. We suggest that the site specific analysis determine where the different types of e-bike classes are appropriate on specific trails and routes, regardless of how they are being operated. CPW recommends removing reference to this caveat and uniformly regulating all classes of e-bikes.

7715.1 - Criteria

CPW supports 7715.5(4) Specific Criteria and Guidance for Designating E-Bike Use on Trails, in addition to the general and specific criteria in FSM 7715.5(1-3). The extent of existing bike use, possible conflicts, and potential effects of increased or concentrated use will vary by location, and CPW believes that allowing site-specific environmental analysis and decision-making will allow for appropriate designation of e-bike use at the local level.

In addition to the proposed criteria, CPW recommends including specific criteria to define the conditions under which e-bike restrictions or closures would be warranted. This criteria may include, but be limited to, resource damage, wildlife impacts and user conflicts. Clarification

of the criteria guiding e-bike use restrictions will provide more transparency to the public and more management consistency between individual decisions.

Additionally, there are areas of National Forest System (NFS) managed lands where cross country travel may be permitted for mechanized or motorized use. The wildlife and natural resource impacts of cross country travel for mechanized and e-bike use is a serious concern for CPW. Given the power and technological advances of e-bikes we anticipate that there will be increased resource damage, proliferation of user created routes, unmitigated impacts to wildlife resources, and increased user conflicts. To address our concern, we recommend that the revised travel planning rule explicitly state that e-bikes (and other mechanized and motorized uses) are limited to designated routes and that cross country travel is prohibited.

7715.72 - Road and Trail Jurisdiction and Coordination

CPW supports this proposed direction to coordinate with appropriate Federal, State, county and other governmental entities and Tribal governments on travel management decisions and operational practices for routes crossing multiple jurisdictions. This provision will help to ensure management compatibility and consistency, and reduce confusion among prospective users. We suggest that this directive specifically include uniform signage or communication provisions aimed at ensuring that users are unequivocally informed about any such restrictions prior to crossing onto adjacent lands, particularly where enforcement measures may differ.

E-Bike Management Decision Authority

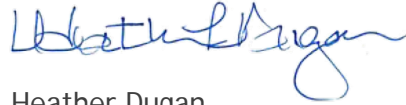
CPW has participated, often as a Cooperating Agency, in the development of numerous US Forest Service Resource Management Plans, Travel Management Plans, and individual NEPA projects. We appreciate that these decision processes afford state agencies the ability to work closely with Forest Service District offices to address both site-specific and landscape-level considerations including public safety, wildlife and natural resource management, visitor education, and recreation management. As such, CPW supports the USDA Forest Service's proposed alignment with the Department of Interior's (DOI) e-bike rulemaking directive, which requires site-specific environmental analysis and decision making at the local level to determine appropriate e-bike allowance on NFS trails. This process will inform decisions on appropriate e-bike trail designation as well as restrictions that may be necessary to protect wildlife and natural resources, public safety, or to achieve other management goals and objectives. District Rangers and local staff typically have the best appreciation of local conditions and community concerns, and therefore, are best positioned to propose management approaches that can effectively balance myriad objectives associated with recreation management decisions within their jurisdictions.

In Conclusion

CPW appreciates the opportunity to comment on the US Forest Service's proposed directives regarding the use of e-bikes. In general, the provisions proposed allow Forest Supervisors and District Rangers to apply specific trail designations and restrictions on e-bikes in order to reduce conflict between user groups or address localized natural resource concerns. The proposed e-bike definition and three-tier classification system are generally consistent with Colorado State Statute, which will promote management consistency between public and state lands.

Please feel free to contact Statewide Trail Program Manager, Fletcher Jacobs, at 303-791-1957 if you have any questions or would like to discuss our recommendations on the proposed rule. CPW looks forward to continuing to work with the Forest Service to improve trail management and better understanding the impacts of e-bike usage on public lands to refine our respective management approaches in the future.

Sincerely,

A handwritten signature in blue ink that reads "Heather Dugan". The signature is fluid and cursive, with the first name being more prominent.

Heather Dugan
Assistant Director - Field Services

CC: Fletcher Jacobs, State Trails Program Manager