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<https://cara.ecosystem-management.org/Public/CommentInput?project=ORMS-2619>

These comments supplement letter ORMS-2619-3567-5490 regarding the proposed FSM 7700 and 7710 E-bikes directives (FR Doc. 2020-21128).

Federal Register Notice (Vol. 85, No. 186) states, *“E-bikes have become increasingly popular nationwide among outdoor recreationists on NFS and other federal lands. E-bikes expand recreational opportunities for many people, particularly the elderly and disabled, enabling them to enjoy the outdoors and associated health benefits.”*

This simple statement could be misleading or is at least incomplete. The 45-65-year-old is the biggest demographic for e-bikes, but there are many younger enthusiasts who want to add an electric mountain bike to their collection and the younger category has become mainstream. The e-mountain bike is growing rapidly as the younger generation shows great interest in trekking and recreation activities. There is an increasing interest of people toward performance-based adventurous sports, which, in turn, is projected to increase the demand for e-MTB. Long rides over the hills are becoming easier, and steep terrain can be conquered with much less effort. Longer distances can be achieved with the same amount of effort as that on flat ground and all of this is attracting even keen mountain bikers to the e-MTB. Marketing of e-MTBs as dirt-throwing adrenaline machines dominates with no indication that the elderly and disabled market is important.

Steve Anderson in Cycle Volta describes, *“To get some perspective for what power means in human terms, we can look at how many watts a typical rider uses on a standard bicycle. Just pedaling along at a typical cruising speed for a non-sporting rider (about 9 mph) takes about 30 watts, about the same energy as normal walking. Go up to 20 mph, and thus rapidly increasing aerodynamic loads, and 220 watts is needed—more than most non-athletes can sustain. Riding up a mild 10 percent grade at just faster than a walking pace takes 150 watts—enough to have most riders breathing and sweating heavily. Tour de France quality racers, though, can put out 400 watts for an hour. The 750 watts allowed for e-bikes under US regulations means we can all have the legs and lungs of a professional bicycle racer.”*

Joe Vadeboncoeur, retired from Trek Bicycle Corporation and president of a user group, said that the existing e-bike legislation doesn't take mountain bike trails into account; he favors the creation of a fourth class for trail use. Class 1 e-bikes in the U.S. have power assist up to 20 mph and a maximum motor size of 750 watts. Vadeboncoeur believes the speed and power are too

much for trails, at least the narrow, limited sight distance, two-way trails. He supports something like Europe's Class 1, which limits power assist to 15 mph and motor size to 250 watts. Many of the existing e-bike systems meet the European specification.¹ Also, missing from the current e-bike Class specifications, is limiting torque which has a direct bearing on bicycle performance. I agree with Joe Vadeboncoeur's assessment that a new lower-powered e-bike class should be recognized. However, in all cases, e-bikes need to be managed as motor vehicles subject to the requirements of 36 CFR § 212.

E-Bikes are motor vehicles. The recent decision by the Bureau of Land Management to exempted e-MTBs from the requirements of Executive Order 11644 and 11989 will lead to increased user conflicts and degradation of natural resources circumventing the requirement *"...that the use of off-road [motorized] vehicles on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands...."* I believe that the Forest Service appropriately recognizes that e-bikes, including e-MTBs, are motor vehicles.

I wish to again thank the Forest Service for clearly recognizing that e-bikes are motor vehicles subject to the requirements of 36 CFR § 212 Travel Management regulations, and thank you for this opportunity to comment on the proposed FSM 7700/7710 directives.

¹ <https://www.pinkbike.com/news/ridden-and-rated-four-best-e-bike-motor-systems-2020-bosch-brose-shimano-fazua.html>