

Tahoe National Forest Electric Mountain Bike FAQ and Resource

HOW DOES TAHOE NATIONAL FOREST CLASSIFY ELECTRIC BICYCLES?

Electric bicycles are classified as motorized bicycles under the Travel Management Rule. Electric bicycle use on both trails and roads in Tahoe National Forest (TNF) and within the National Forest System (NFS) is governed by existing United States Forest Service (USFS) directives, policies and regulations, [available here](#).

DOES TAHOE NATIONAL FOREST ALLOW ELECTRIC BICYCLES ON NON-MOTORIZED TRAILS?

No. Consistent with the U.S. Forest Service's national directives governing electric bicycles, TNF regulates electric bicycles as motorized. Therefore, electric bicycles may not be used on trails designated as non-motorized. However, TNF recently updated its trail designations to expand electric bicycle access. Through this process (described below), TNF re-designated trails that were previously "non-motorized" as "motorized" in order to permit the use of electric bicycles.

WHERE ARE ELECTRIC BICYCLES ALLOWED IN TAHOE NATIONAL FOREST?

Electric bicycle use is only permitted in TNF and within the National Forest System (NFS) on roads and trails if they have been designated for motor vehicle use, as reflected on the [motor vehicle use map](#).

In May 2021, TNF completed an [Environmental Assessment \(EA\) for the East Zone Connectivity Project](#). The decision from the EA changed trail designation from "non-motorized" to "motorized" in order to expand access for Class 1 electric bicycles on 35 additional miles of trails in TNF. Trails that now allow electric bicycles include the Commemorative Overland Emigrant Trail, the Sawtooth Trail, the Big Chief Trail and the Donkey Town Trail. A complete map of the electric bicycle trails in the Truckee Ranger District can be found [here](#).

HOW DID TRAIL ACCESS FOR CLASS 1 ELECTRIC BICYCLES EXPAND IN TAHOE NATIONAL FOREST?

The NFS prepared an [EA for the East Zone Connectivity Project](#) in compliance with USFS Travel Management Planning regulations and the National Environmental Policy Act. This process included a public comment period. The EA included a Decision Notice and Finding of No Significant Impact. Among other actions, the decision made changes to the National Forest Transportation System, which included the designation of 35 miles of existing non-motorized trails as open for Class 1 electric bicycles.

The EA decision determined that electric bicycle access on the proposed trails will not significantly alter public enjoyment and will not affect the patterns of use on the trails for Class 1 electric bicycle recreation.

WILL MORE TRAILS BE OPENED TO ELECTRIC BICYCLES IN TAHOE NATIONAL FOREST?

TNF stated that they will continue to monitor safety, sustainability and natural resource impacts associated with the effects of electric bicycle use on NFS roads and trails. The information collected will help guide the continued use-designation of trails in the NFS.

They noted that trails that are already open to conventional bicycles may be considered for electric bicycle use in the future. However, any new trail access would need to be analyzed in a NEPA process with a public comment period. If trails are selected for electric bicycle use, they would need to be designated as motorized and shown on the Forest's [motor vehicle use map](#) as designed for electric bicycle use.

NOTEWORTHY FINDINGS FROM THE EAST ZONE CONNECTIVITY AND RESTORATION PROJECT DECISION NOTICE & FONSI:

Though electric bicycles are regulated distinctly from conventional bicycles, since they are considered motorized, TNF made several noteworthy findings regarding the similarity of Class 1 electric mountain bikes and conventional mountain bikes during its NEPA review process. In short, TNF considers Class 1 electric mountain bikes and conventional mountain bikes to be similar modes of recreating.

TNF recognizes the potential of electric mountain bikes to create more positive outcomes by enabling more people, particularly elderly populations and people with disabilities, to enjoy the outdoors and the associated health benefits ([East Zone Connectivity and Restoration Project Decision Notice & FONSI 2021](#)). Based on a review of current scientific literature, this approach is consistent with research which concluded that electric mountain bikes give people who may not otherwise be able to bike (due to physical limitations or proximity to locations) the ability to overcome these challenges ([East Zone Connectivity and Restoration Project Decision Notice & FONSI 2021](#)).

While current Forest Service policy requires that electric mountain bikes of all classes must be considered motorized vehicles within their trails system, there exists a wealth of scientific, user group and industry-produced literature concluding that Class 1 electric mountain bikes, in particular, are generally similar to conventional mountain bikes in terms of components, speed, impacts to trail and health benefits. Allowing Class 1 electric mountain bikes on trails that are currently open to and heavily used by conventional mountain biking enthusiasts will not measurably alter current patterns of use or create additional displacement of other user groups that currently choose to recreate on those trails.

SPEED AND SAFETY

During the EA process, TNF collected comparative speed data on the trails where Class 1 electric bicycles were proposed for recreational use. They measured differences in average and top speeds between intermediate and advanced riders on conventional mountain bikes and Class 1 electric mountain bikes over mixed terrain, including downhill, uphill and flat sections of trail.

The results showed that average speed was similar between Class 1 electric mountain bicycles and their conventional counterparts on flat and downhill sections of trail. On uphill sections, Class 1 electric bicycles were able to achieve higher speeds ranging from 8-13 mph while conventional mountain bikes averaged 5-8 mph through the same sections. However, this difference in speed is well within the range that can be observed between novice and expert riders.

Based on the collected data, the slightly higher speeds by Class 1 electric bicycles on uphill sections do not represent a significantly increased safety risk to other user groups relative to the current level of use already occurring by conventional counterparts. Speed is largely determined by rider skill and trail design.

TNF concluded that differences in speeds on singletrack natural surface trails are largely dictated by the rider's ability as well as trail conditions, alignment and design. Additionally, it was noted that Class 1 electric bicycles and conventional mountain bikes have almost indistinguishable frames and components, making their stopping ability similar and trail etiquette guidelines the same for both types of users.

Based on TNF's local observations that are informed by data from industry, user groups and peer-reviewed scientific literature, they conclude that, "Class 1 e-bikes and traditional mountain bikes are similar recreation activities in terms of their structure, components, versatility, health benefits (Hall et al. 2019), speeds (Langford et al. 2015), impacts to trail (Wilson and Seney 1994) (IMBA 2015), and even the way they look," ([East Zone Connectivity and Restoration Project Decision Notice & FONSI 2021](#)).

TNF acknowledges that Class 1 electric mountain bikes will afford some users, who may not otherwise be able, the ability to travel further. However, their observations indicate that this will, "Provide expanded access, distributing that use over more of the trails thereby reducing impacts to currently heavily trafficked sections of trail closer to existing trailheads and staging areas," ([East Zone Connectivity and Restoration Project Decision Notice & FONSI 2021](#)).

DISPLACEMENT OF NON-MOTORIZED USER GROUPS

Based on observations from TNF, providing Class 1 electric mountain bike users sanctioned areas to ride on trails managed for heavy bike use will help discourage unauthorized use in unsanctioned areas. This will help improve the maintenance and management of other trail systems for all user groups.

ENFORCEMENT

Based on TNF's observations through experience, a majority of people recreating on public lands choose to follow the rules of the trail. Emphasis on education and outreach will serve to inform all users of exactly what those rules are. TNF implemented the use of informational kiosks at trailheads and staging areas which clearly defined the trails that allow Class 1 electric mountain bikes as "Open to Class 1 E-bikes Only." Other classes of electric

mountain bikes will be directed to alternate routes on the designated motorized vehicle system. All other non-motorized trails will be posted to inform users that electric mountain bikes are not allowed.

IMPACT TO TRAILS

The observations and data collected by TNF staff, relative to Class 1 electric mountain bikes' impact on trails, are consistent with the findings from other studies in this topic area. These studies were conducted by varying institutions, universities and industry groups that performed research on trail impacts from recreational uses. Data from the scientific literature is consistent on several key points:

1. Greater sediment yields are produced by equestrians and pedestrians when compared to wheeled modes of transportation. ([East Zone Connectivity and Restoration Project Decision Notice & FONSI 2021](#))
2. Horse traffic produces the greatest force (weight per unit area) among hikers, equestrians, mountain bikers and motorcyclists. ([East Zone Connectivity and Restoration Project Decision Notice & FONSI 2021](#))
3. Horses cause greater increases in soil compaction, litter, trail width and trail depth compared to hikers and motorcycles. ([East Zone Connectivity and Restoration Project Decision Notice & FONSI 2021](#))

TNF's observations related to trail impacts are also consistent with a study conducted by the International Mountain Bicycling Association (IMBA) which found similar effects between Class 1 electric mountain bikes and their conventional counterparts ([East Zone Connectivity and Restoration Project Decision Notice & FONSI 2021](#)).

Based on a review of their findings, "Tahoe National Forest has determined that inclusion of Class 1 E-bikes as a designated, legitimate use on these trails does not constitute an increased adverse impact to their sustainability," ([East Zone Connectivity and Restoration Project Decision Notice & FONSI 2021](#)).

TRAIL USE ETIQUETTE

TNF identified irresponsible trail use on the part of individuals, not whole communities of user groups, to be the main culprit of adverse impacts and trail conflicts on public lands. TNF staff reviewed a recent study that surmised riders of electric bicycles and conventional bicycles display similar safety behavior while riding ([East Zone Connectivity and Restoration Project Decision Notice & FONSI 2021](#)). Educational outreach and improved understanding of basic trail etiquette guidelines and user responsibilities are effective means of mitigating potential conflicts while expanding opportunities for all users to recreate safely and sustainably on public trails.