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Electric Bicycles (E-Bikes) on Federal Lands

In recent years, the sale and usage of electric bicycles (or *e-bikes*) in the United States has increased rapidly. Although numbers vary, some industry experts estimate that more than 1 million e-bikes were imported to the United States in 2022, making them the fastest-growing segment of the bike market (*Business Insider*, April 22, 2023).

E-bikes also have become a popular mode of recreation across the nation’s parks, forests, and trails. Proponents of e-bikes see them as a way to increase access to and within these places, particularly for individuals who may otherwise not be able to bicycle owing to physical limitations, age, or other factors. At the same time, some have raised concerns regarding potential environmental and safety issues posed by the usage of e-bikes in areas intended for traditional, nonmotorized bicycles and/or pedestrians. In addition, uncertainty around whether e-bikes should be classified and treated as traditional bicycles or as motorized vehicles has led to confusion among land managers and users alike. In response to these and other issues, federal land management agencies (FLMAs) are adapting their policies and regulations to ensure the usage of e-bikes on lands under their jurisdiction complies with their management directives and legal requirements.

Legislators and land managers also may face additional questions in the coming years as e-bike technology, production, and user trends evolve. Congress may consider future federal lands legislation or oversight activities related to any such changes (see “Emerging Issues”).

What Is an E-Bike?

Although definitions may vary across jurisdictions and between agencies, the term *e-bike* typically refers to two- or three-wheeled bicycles with small (not more than 750 watts) electric motors that provide assistance in generating momentum through pedaling or via a hand throttle. The design and capabilities of e-bikes may vary, but FLMAs generally have established a three-tier classification system that limits what may or may not be considered an e-bike based on maximum assisted speed (see **Table 1**).

This system is generally consistent with other definitions of the term *e-bike* established elsewhere in law by Congress. For example, the Consumer Product Safety Act defines *low-speed electric bicycles* under this three-tier classification (15 U.S.C. §2085). More recently, Congress enacted a similar definition for the term *electric bicycle* for the purposes of surface transportation programs (23 U.S.C. §217(j)(2)). For FLMAs, agency policies distinguish between these various classes of e-bikes, with certain areas closed or open to certain classes (see “Agency Regulations and Guidance”). E-bikes that fall outside of this classification system are typically considered motorized

uses and may be subject to different legal and/or regulatory restrictions on federal lands. (For more information on motorized recreation on federal lands, see CRS Report R48076, *Motorized Recreation on Federal Lands*, by Mark K. DeSantis).

Table 1. E-Bike Classification System

Class Type	Description
Class I	Equipped with a motor that provides assistance only when the rider is pedaling and ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour
Class II	Equipped with a motor that may be used exclusively to propel the bicycle and that is not capable of providing assistance when the bicycle reaches the speed of 20 miles per hour
Class III	Equipped with a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the bicycle reaches the speed of 28 miles per hour

Source: See Department of the Interior, Secretary’s Order 3376, “Increasing Recreational Opportunities Through the Use of Electric Bikes,” August 29, 2019. Similar classification language has been promulgated in regulations by certain federal agencies (see “Agency Regulations and Guidance”).

Agency Regulations and Guidance

Department of the Interior. In August 2019, then-Secretary of the Interior David Bernhardt signed Secretary’s Order 3376, “Increasing Recreational Opportunities Through the Use of Electric Bikes” (S.O. 3376). Among other purposes, the order directed certain Department of the Interior (DOI) bureaus—the Bureau of Land Management (BLM), National Park Service (NPS), U.S. Fish and Wildlife Service (FWS), and Bureau of Reclamation (BOR)—to revise their regulations and add a definition for e-bikes consistent with 15 U.S.C. §2085 and to exempt e-bikes from the definition of motorized or off-road vehicles. The stated goal of this directive was to clarify the regulatory status of e-bikes across federal lands so as to “increase recreational opportunities for all Americans, especially those with physical limitations, and to encourage the enjoyment of lands and waters managed by the Department of the Interior.”

In response to this directive, each of the aforementioned DOI bureaus promulgated regulations governing the use of e-bikes on lands under their jurisdiction (see 43 C.F.R. §8340.0-5 for BLM; 36 C.F.R. §§1.4 and 4.30(i) for NPS; 50 C.F.R. §27.31 for FWS; and 43 C.F.R. §420 for BOR). Although the finalized rules vary slightly across agencies,

generally speaking, all of the regulations implement a number of similar policy changes that include

- Excluding e-bikes from agency definitions of motorized (e.g., NPS) or off-road (e.g., BLM, BOR) vehicles
- Allowing for the use of e-bikes, or certain classes of e-bikes, in a manner consistent with traditional bicycles, including (at the discretion of the authorized official) on nonmotorized roads and trails
- Prohibiting, to varying degrees, operators of Class II e-bikes from using the motor exclusively to propel the bicycle for an extended period of time without pedaling, except in locations open to motorized use
- Clarifying land managers' authority to limit or restrict e-bike use as needed under certain conditions or for certain reasons

Forest Service. Although not subject to S.O. 3376, in 2022, the Forest Service (FS) also finalized directives in its agency manuals that clarify how e-bikes are managed on national forests and grasslands (*Forest Service Manual* [FSM] 7700 and 7710). Similar to the DOI regulations, the FS policies classify e-bikes in accordance with the three-tiered system (see **Table 1**). However, unlike the DOI rules, the FS defines an e-bike as a type of motor vehicle. As a result, e-bikes are not permitted on nonmotorized trails and in nonmotorized areas unless their use is specifically designated. The policy requires that when considering whether to designate roads, trails, or areas for e-bike use, the “appropriate level of environmental analysis, including programmatic analyses, should be evaluated” (FSM 7715.5).

Recent Litigation and Policy Developments

In May 2022, the U.S. District Court for the District of Columbia issued an opinion finding that NPS had improperly relied on a categorical exclusion to comply with the National Environmental Policy Act (NEPA; 42 U.S.C. §§4321 et seq.) in issuing the agency's final rulemaking for the use of e-bikes in national parks (*Pub Emps. For Env't Responsibility v. Nat'l Park Serv. (PEER v. NPS)*, 605 F. Supp. 3d 28 (D.D.C. 2022)). The court remanded the rule to NPS and directed the agency to conduct additional NEPA analysis but left the rule in place pending completion of such analysis. In August 2024, NPS issued a programmatic environmental assessment determining that the nationwide regulations would not result in significant impacts to the quality of the human environment.

Emerging Issues

As e-bikes become an increasingly popular means of recreation, Congress and federal land managers may continue to face a range of potential issues related to their use and impacts. These include issues related to possible environmental and resource degradation, safety concerns, infrastructure needs, and equity and access needs.

Proponents suggest e-bikes can decrease reliance on other motor vehicles, thereby reducing greenhouse gas emissions and improving air quality on federal lands. Other stakeholders have raised concerns regarding whether heavier, fast-moving e-bikes may cause erosion or damage to trails, many of which are already experiencing degradation due to high visitation and usage. A study conducted by the Federal Highway Administration (FHWA) looking at the potential impacts of e-bikes on public lands found limited literature or experimental studies examining whether there were any meaningful differences in the ecological impact of e-bikes compared with traditional bicycles (FHWA, “The Future of E-Bikes on Public Lands: How to Effectively Manage a Growing Trend,” Nov. 2022). Similarly, limited research is available regarding potential increased disturbances to wildlife as a result of e-bike usage.

E-bikes also have raised safety concerns among some users and land managers due in part to their high-speed capabilities. Possible issues could include increases in collisions and injury rates due to e-bikes sharing trails with pedestrians or other users, as well as increased severity of injuries. In addition, the potential for e-bikes to allow visitors to travel greater distances and access more remote areas could result in more complex and dangerous search and rescue efforts. Legislators or land managers may consider additional educational or regulatory safety measures to address these potential concerns. Alternatively, e-bikes also could serve as valuable emergency response vehicles and could assist search and rescue operations teams operating in remote areas.

As e-bike usage increases, consideration also may be given to whether or to what degree agencies should establish biking infrastructure within or around federal lands. This includes the potential addition of charging stations for e-bikes. Adding or expanding charging infrastructure for e-bikes may be considered within the context of agency budgetary constraints, whether such facilities can or should rely on certain renewable power sources, and concerns about encouraging e-bike use at areas already experiencing high visitation.

Similar to other recreational activities, e-bikes also can raise questions around equity and access to federal lands. On the one hand, e-bikes may increase access to public lands, particularly for individuals with mobility impairments or others who may find traditional bicycling or hiking challenging. However, given the high purchase and maintenance costs of e-bikes, personal bike ownership may be inaccessible to many individuals. This issue might become less pronounced should upfront costs drop in future years. In addition, agencies could consider installing or incorporating e-bikes into existing or future bikeshare systems.

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