



Natural Resource Manager (NRM)
USDA Forest Service

E-Bike FAQs

Frequently asked questions for managing electric
bicycles on National Forest System lands

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How are Electric Bicycles (e-bikes) managed on National Forest System lands?

1. What is an e-bike?

FSM 7705 – Definitions:

Electric Bicycle (E-Bike): Also referred to as an electric mountain bike (eMTB), a type of motor vehicle with two or three wheels, fully operable pedals, and an electric motor of not more than 750 watts that meets the requirements of one of the following three classes:

1. 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.
2. 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.
3. 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.

2. What is Forest Service (FS) policy regarding riding an e-bike on a National Forest System Road (NFSR)?

By definition (FSM 7705) an e-bike is a type of motor vehicle and the use is governed by the Travel Management Rule (36 CFR 212, Subpart B) and related Forest Service Manuals (FSM 7700 and 7710). Generally, if the road is open to a motor vehicle, it is open to an e-bike.

3. Are e-bikes allowed on Roads Open to Highway-Legal Motor Vehicles Only?

Highway-Legal Vehicles are any motor vehicle that is licensed or certified under State law for general operation on all public roads in the State. Operators of highway-legal vehicles are subject to state traffic law, including requirements for operator licensing (FSM 7705). Local units should check their relevant State laws to determine if e-bikes are an appropriate Mode of Travel (MOT) on Roads Open to Highway-Legal Motor Vehicles Only.

4. Are e-bikes allowed on routes open to motorized vehicles?

Yes, e-bikes are generally considered to be allowed on any road or trail that is open to other motor vehicles.

5. Are e-bikes allowed on non-motorized trails?

No, e-bikes are defined as a motorized vehicle and trails that are not currently open to motorized vehicles will need to undergo travel planning before allowing e-bikes.

If planning is conducted utilizing the processes in FSM 7710 and a decision is made to allow e-bikes on a non-motorized trail, that trail will then be designated as a motorized trail. E-bike Mode(s) of Travel must then be added to the ATM module of NRM, and the trail will be displayed on the Motor Vehicle Use Map (MVUM).

6. Are e-bikes allowed on NFS Roads closed to motor vehicles ('closed roads')?

No, e-bikes are not allowed on closed roads. If planning is conducted utilizing the processes in FSM 7710 and a decision is made to allow e-bikes on a road closed to motorized travel, business rules direct that a coincident motorized trail be created over that road, and add e-bike MOT to the ATM. The route will then be displayed on the MVUM as a motorized trail. Alternatively, the closed road could be converted to a motorized trail.

7. Does a Mixed Motorized Use Analysis need to be conducted before adding e-bikes to an NFS Road?

Motorized mixed use occurs when an NFS road is designated for use by both highway-legal and non-highway-legal motor vehicles (FSM 7705).

Decisions on motorized mixed use, like other travel management decisions, are the responsibility of the Responsible Official. The role of the qualified engineer is to analyze information on the road and road use and to recommend mitigation of safety risks (FSM 7715.77 (5)).

See FSM 7715.77 for more information on the process.

Access Travel Management (ATM) and Motorized Vehicle Use Map (MVUM) for e-bikes

8. Why do we need an MVUM?

36 CFR 212.56. Designated roads, trails, and areas shall be identified on a motor vehicle use map. Motor vehicle use maps shall be made available to the public at the headquarters of the corresponding administrative units and Ranger Districts of the National Forest System and, as soon as practicable, on the website of corresponding administrative units and Ranger Districts. The motor vehicle use maps shall specify the classes of vehicles and, if appropriate, the times of year for which use is designated.

9. Who is responsible for creating an MVUM/OSVUM and how often should they be updated?

FSM 7704.7 – Forest Supervisors (4) - Maintaining current transportation system data to meet national information requirements and MVUM and OSVUM standards.

FSM 7711.3 (8) - Review and reissue MVUMs and OSVUMs annually, regardless of whether there are any changes to designations. Reissuance can be accomplished by revising the date of the MVUM or OSVUM, as specified in the applicable production guide. Update MVUMs and OSVUMs to reflect revisions to designations (36 CFR 212.54, 212.81(d)). In updating an MVUM, use the national requirements developed by the Washington Office, Director of Engineering (FSM 7710.42).

10. How will e-bikes be symbolized on MVUM maps?

A new symbol indicates where e-bikes are the sole allowed mode of travel (Figure 1). Seasonal use will be indicated with the Seasonal Designation gray band, as it is for other modes of travel. The Table Generator tool will indicate which class(es) of e-bikes are allowed on those routes. A description of how the linear events are used to create the map display can be found in [Appendix C](#) - Description of I-Web MVUM Tables.

..... Trails Open to E-Bikes

Figure 1: new MVUM symbol for trails open to e-bikes

11. Can I add e-bikes to my existing bicycle trails?

Bicycles are defined as “A pedal-driven, solely human-powered device, with two wheels attached to a frame, one behind another” (FSM 7705) and are a non-motorized use. If the trail is non-motorized and currently allows bicycles, e-bikes should be added as a managed use **only after** the NEPA (travel planning) has been completed.

12. Why am I seeing e-bike values populated in the ATM module?

Forest Service policy allows e-bikes on all routes (both roads and trails) that are open to motor vehicles. On January 18, 2022, all road and trail segments open to motor vehicles were automatically populated with an e-bike MOT record in the Allowed Use tab. This automatic database modification will not result in any changes to the MVUM.

Future routes where e-bikes will be an allowed use will need to go through the process of designation and MOT records added manually to the ATM module. This is the same process that is used to designate a new route as open to any other motorized travel.

13. Why were e-bikes added to existing motorized trails but not on bicycle trails?

E-bikes are defined as motor vehicles and allowed use is to be displayed on MVUMs. Trails with a bicycle allowed use are not motorized and do not appear on the MVUM.

14. Why were e-bikes added as an accepted use and not managed use for motorized trails?

Within the MOT hierarchy, e-bikes are located under all other motorized uses (at the 1.2.2.4 level). Because e-bikes do not require the level of maintenance of any of the higher-level Modes of Travel, business rules state that they should be added as an allowed use, rather than a managed use.

15. Should I add e-bikes as an accepted use or a managed use?

If the trail is motorized, e-bikes should be added as an accepted use. For roads, e-bikes should be added as an allowed use.

16. How do we convey to the public where e-bikes are allowed over snow?

E-bikes are not an over-snow vehicle per 36 CFR 212, Subpart C and therefore allowed use is not displayed on Over Snow Vehicle Use Maps (OSVUM). E-bikes are defined as motor vehicles and allowed use is to be displayed on the MVUM per 36 CFR 212, Subpart B.

17. How do I code e-bikes in the NRM ATM Module?

Most motorized routes (roads and trails) currently open to motor vehicles were automatically populated with an e-bike MOT record. The following instructions are for adding e-bike allowed use resulting from a recent travel decision.

For ROADS:

1. Open the ATM Roads Form and query the road that you want to assign as open to e-bikes.
2. Add a new e-bike MOT record(s) within the Allowed Use tab.
3. Assign a strategy of ACCEPT to the record.
4. Record the BMP/EMP and Date range when e-bike use is allowed (Figure 2).

The screenshot displays the ATM Roads module interface. The main window has a menu bar (File, Edit, Record, Query, Help, Window) and a toolbar. Below the toolbar are tabs for ATM Codes, ATM Devices, and Roads. The Roads tab is active, showing the 'Access & Travel Management for Roads' section. A selected road is '10112 - Wild Bill South Saddle' with BMP = 0.0000 and EMP = 0.1900. The 'Allowed Uses' tab is selected, showing a table with columns: Select, ID, Name, MPs, Sec.ID. The table contains one record: 10112, Wild Bill South, 0, 19, 0110. Below the table are fields for Strategy, Mode of Travel, BMP, EMP, and Date range (From, Thru). The Strategy is set to 'ACCEPT' and Mode of Travel is '1.1 HIGHWAY VEHICLE'. The Date range is '01 / 01 12 / 31'. A 'Remarks' field is also present. A 'Restricted Uses' section is visible below the Allowed Uses section. A pop-up window titled 'Mode of Travel Codes' is open, showing a hierarchy of codes and descriptions. The hierarchy is: 1.2.2.4 E-BIKE, 1.2.2.4.1 CLASS 1 E-BIKE, 1.2.2.4.2 CLASS 2 E-BIKE, 1.2.2.4.3 CLASS 3 E-BIKE, 2 NON-MOTORIZED, 2.1 HIKER/PEDESTRIAN. The description for 1.2.2.4 E-BIKE is 'Also referred to as an electric moun...'. The pop-up window has a 'Find' field and 'Find', 'OK', and 'Cancel' buttons.

Hierarchy	Mode of Travel	Description
1.2.1.1.1	4WD > 50"	Four-wheeled OHVs greater than 50"
1.2.1.1.2	2WD > 50"	Two-wheeled OHVs greater than 50"
1.2.1.2	TRACKED OHV > 50"	OHVs greater than 50" in width open
1.2.1.3	OTHER OHV > 50"	Other OHVs greater than 50" in width
1.2.2	OHV <= 50"	OHVs less than or equal to 50" in width
1.2.2.1	WHEELED OHV <= 50"	OHVs less than or equal to 50" in width
1.2.2.1.1	ATV	OHVs less than or equal to 50" in width
1.2.2.1.2	MOTORCYCLE	Two-wheeled vehicles on which the operator is seated
1.2.2.1.3	OTHER WHEELED OHV	Other wheeled OHVs less than or equal to 50"
1.2.2.2	TRACKED OHV <= 50"	An OHV less than or equal to 50" in width
1.2.2.3	OTHER OHV <= 50"	Other OHVs less than or equal to 50" in width
1.2.2.4	E-BIKE	Also referred to as an electric moun...
1.2.2.4.1	CLASS 1 E-BIKE	An e-bike equipped with a motor th...
1.2.2.4.2	CLASS 2 E-BIKE	An e-bike equipped with a motor th...
1.2.2.4.3	CLASS 3 E-BIKE	An e-bike equipped with a motor th...
2	NON-MOTORIZED	All use by other than motor vehicle...
2.1	HIKER/PEDESTRIAN	Foot travel, including wheelchairs o...

Figure 2: Within the ATM for Roads module, ATM Allowed Uses tab displaying the Modes of Travel hierarchy list of values

For MOTORIZED TRAILS:

1. Open the ATM for Trails Form and query the trail that you want to assign as open to e-bikes.
2. Add a new e-bike MOT record(s) within the Allowed Use tab.
3. Assign a strategy of ACCEPT to the record.
4. Record the BMP/EMP and Date range when e-bike use is allowed (Figure 3).

The screenshot shows the 'ATM for Trails' application interface. The 'Allowed Uses' tab is active, displaying a table of trail records. The 'Trail Listing' table on the left shows a single record for 'Yellow Pine' with ID 3240. The 'Allowed Uses' table on the right shows records for 'PACK AND SADDLE' and 'HIKER/PEDESTRIAN' with strategy 'ACCEPT'. A pop-up window titled 'Mode of Travel Codes' is open, showing a hierarchy of travel modes. The 'E-BIKE' mode is highlighted, showing its sub-classes and descriptions.

Mode of Travel	Hierarchy	Description
OHV <= 50"	1.2.2	OHVs less than or equal to 50" in width.
WHEELED OHV <= 50"	1.2.2.1	OHVs less than or equal to 50" in width operating on wheels such as ATVs, motorcycles, and balancing scooters.
ATV	1.2.2.1.1	OHVs less than or equal to 50" with three or more low-pressure tires, handle-bar steering and a seat designed to be straddled by the rider.
MOTORCYCLE	1.2.2.1.2	Two-wheeled vehicles on which the two wheels are inline, not side-by-side.
OTHER WHEELED OHV <= 50"	1.2.2.1.3	Other wheeled OHVs less than or equal to 50" in width. Includes balancing scooters.
TRACKED OHV <= 50"	1.2.2.2	An OHV less than or equal to 50" in width operating on tracks. Includes ATVs with track conversion kits and snowmobiles when used on tracks.
OTHER OHV <= 50"	1.2.2.3	Other OHVs less than or equal to 50" in width that are not considered to be ATVs or motorcycles and are not wheeled or tracked.
E-BIKE	1.2.2.4	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, and a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the rider stops pedaling.
CLASS 1 E-BIKE	1.2.2.4.1	An e-bike equipped with a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the rider stops pedaling.
CLASS 2 E-BIKE	1.2.2.4.2	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 rider stops pedaling.
CLASS 3 E-BIKE	1.2.2.4.3	An e-bike equipped with a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the rider stops pedaling.
NON-MOTORIZED	2	All use by other than motor vehicles, including wheelchairs or mobility devices under CFR 212.1, including battery-powered.
HIKER/PEDESTRIAN	2.1	Foot travel, including wheelchairs or mobility devices.
PACK AND SADDLE	2.2	Riding or packing stock.
HORSE/MULE	2.2.1	Horses or mules.

Figure 3: Within the ATM for Trails module, ATM Allowed Uses tab displaying the Modes of Travel hierarchy list of values

18. Why would I want to restrict a specific class of e-bike?

As each case is unique, refer to your forest travel management decision(s).

19. How do I EXCLUDE e-bikes from a route open to other motorized vehicles?

E-bikes can be restricted on roads and motorized trails in instances where a planning decision has been made to do so. To exclude/restrict e-bikes, remove any e-bike Mode of Travel from the Allowed Uses tab.

If the route is a motorized trail, business rules require the Restricted Uses tab to be populated. Add an e-bike Restricted Use Code to the Restricted Uses tab. (You may have to create a Restricted Use Code for your unit if one does not already exist.)

Populating the Restricted Use tab for roads is recommended.

When using the Table Generator Tool to create the Special Designation table, that route will appear in the table, indicating what MOTs are allowed in Column D. E-bikes will not be listed as an allowed use in the table.

Step-By-Step Instructions:

1. Open the ATM Trails Form and query the trail to which you want to add a restricted use.
2. Open the Restricted Use Tab and add the Restricted Use Code for E-bikes (Figure 4).

The screenshot displays the 'Access & Travel Management for Trails' interface. The 'Selected Trail' is '7020 - Bear Hollow (Standard/Terra)' with 'BMP = 0.0000' and 'EMP = 5.4319'. The 'Trail Listing' table shows one entry: ID 7020, Name Bear Hollow, MP 0 - 5.4319, and Sec ID 0419. The 'Restricted Uses' section has a table with columns: *Code, BMP, EMP, Order Number, Remarks, and Copy to ROE. The first row shows 'EBIKE' with BMP 0.0000 and EMP 5.4319. The 'Strategies' section contains a table with columns: Strategy, Mode of Travel, From Date (MM/DD), Thru Date (MM/DD), and Applies To. The strategies listed are: PROHIBIT 1.2.1 OHV > 50", PROHIBIT 1.1 HIGHWAY VEHICLE, PROHIBIT 1.2.2.1 WHEELED OHV <= 50", PROHIBIT 1.2.2.2 TRACKED OHV <= 50", and PROHIBIT 1.2.2.3 OTHER OHV <= 50". All strategies have a duration of 0 days and apply to the PUBLIC. The 'Reasons' section has fields for Primary and Other.

Strategy	Mode of Travel	From Date (MM/DD)	Thru Date (MM/DD)	Applies To
PROHIBIT 1.2.1	OHV > 50"	01 / 01	12 / 31	0 days PUBLIC
PROHIBIT 1.1	HIGHWAY VEHICLE	01 / 01	12 / 31	0 days PUBLIC
PROHIBIT 1.2.2.1	WHEELED OHV <= 50"	01 / 01	12 / 31	0 days PUBLIC
PROHIBIT 1.2.2.2	TRACKED OHV <= 50"	01 / 01	12 / 31	0 days PUBLIC
PROHIBIT 1.2.2.3	OTHER OHV <= 50"	01 / 01	12 / 31	0 days PUBLIC

Figure 4: an example of the ATM Module Restricted Use tab. The strategies for the Restricted Use code "E-BIKE" are shown in the middle pane

- If there are no Restricted Use Codes with e-bike MOTs listed for your unit, you will need to create one (Figure 5):

The screenshot shows the ATM_CODE software interface. The top menu bar includes File, Edit, Record, Query, Help, and Window. Below the menu is a toolbar with various icons. The main window title is "ATM_CODE Version: 6.0 User: EBPALMER@nrmtest Domain: fs.usda.gov". The interface is divided into two main sections: "Restricted Use Codes" and "Strategies".

Restricted Use Codes

*Sec. ID	*Code	*Type	Name	Primary Reason	Remarks	Summary Code
0419	CLOSED	TRAVEL_MANAGEMENT_ARE	CLOSED TO ALL MOTOR	PROVIDE NON-MOTORIZED REC OPPO		
0419	EBIKE	TRAIL	EBIKE ALLOWED		Restrict all other motorized	YR
0419	HORSEMTR	TRAIL	NOHORSE/MTR	REDUCE USER CONFLICTS		YR
0419	L1	TRAVEL_MANAGEMENT_ARE	CLOSED TO XCOUNTRY	PROTECT WINTER RANGE		
0419	M1A	ROAD	ALL MOTORIZED ELIMINA			YR
0419	M1B	ROAD	ALL MOTORIZED PROHIB			YR
0419	M2	ROAD	STREET LEGAL ONLY			
0419	M3	ROAD	ELK CALVING - COOP CR			SR
0419	M3A	ROAD	SPECIAL DESIGNATION C	PROTECT CALVING HABITAT	Conjunction with the CO-OP road	SR
0419	M4	ROAD	ROADS - NO ATV, MOTO			
0419	M6	ROAD	ROADS - OPEN ONLY DU		Only used up Bartholomew	
0419	MECH/NOMTR	TRAIL	MECH/NOMTR	OTHER	Travel Plan prohibits mechanized	YR
0419	NOATV	TRAIL	ATV PROHIBITED	OTHER	The trails are closed to ATV use	YR
0419	NOBIKE/MTR/STOC	TRAIL	TONY GROVE NATURE	REDUCE USER CONFLICTS	Special Order 041903 closes the	YR

Strategies

*Strategy	*Mode of Travel	*From MM	*From DD	*Thru MM	*Thru DD	+/-	days	*Applies To
PROHIBIT	1.1 HIGHWAY VEHICLE	01	01	12	31	+/-	0	PUBLIC
PROHIBIT	1.2.1 OHV > 50"	01	01	12	31	+/-	0	PUBLIC
PROHIBIT	1.2.2.1 WHEELED OHV <= 50"	01	01	12	31	+/-	0	PUBLIC
PROHIBIT	1.2.2.2 TRACKED OHV <= 50"	01	01	12	31	+/-	0	PUBLIC
PROHIBIT	1.2.2.3 OTHER OHV <= 50"	01	01	12	31	+/-	0	PUBLIC
PROHIBIT	1.2.2.4.3 CLASS 3 E-BIKE	01	01	12	31	+/-	0	PUBLIC
PROHIBIT	1.2.2.4.2 CLASS 2 E-BIKE	11	16	05	31	+/-	0	PUBLIC

Indicate a +/- number of days on either side of the from/thru dates when the restriction is still valid.

Record: 7/8

Figure 5: an example of a Restricted Use Strategy which restricts e-bike Modes of Travel

20. I'm expecting a road to be displayed as open to all Highway Legal vehicles. Why is it showing up as a special designation?

Roads open to motorized use that are missing an e-bike MOT will be symbolized as a Special Designation (Symbol 11 or 12) and will be displayed in the Seasonal and Special Designation Table. This way, the reader can identify that e-bike use is specifically restricted on that road.

21. Do I record ATM information on non-NFS Roads or Trails?

No, only record ATM data on NFSRs/NFSTs. Non-system routes are automatically precluded from being symbolized in the II_MVUM_ROAD_ALLOW and II_MVUM_TRAIL_ALLOW tables; therefore any ATM information recorded on route segments that are not NFSR/NFST System or are not Forest Service Jurisdiction will not be symbolized or mapped on an MVUM or OSVUM (FSM 7715.72 (3)).

Access Travel Management (ATM) and Motor Vehicle Use Map (MVUM) General

22. Where can I find the latest Mode of Travel Hierarchy?

The ATM Mode of Travel Hierarchy is located in Appendix C of the ATM Data Dictionary. This is posted on the ATM NRM Support page:

<http://fsweb.nrm.fs.fed.us/support/docs.php?appname=atm> and on the FS Motorized Vehicle Use Map web page: <https://apps.fs.usda.gov/gtac-tools/MVUM/>

23. I'm brand new to ATM / NRM. I've been asked to Create / Update my unit's MVUM or OSVUM. How do I get started?

- a. Ensure coordination with your Forest GIS Coordinator
- b. Ensure familiarization with Forest Travel Management Decisions and coordinate with your Planning Staff
- c. Refer to training in the NRM support pages:
<http://fsweb.nrm.fs.fed.us/support/docs.php?appname=atm>
- d. Familiarize yourself with the MVUM and OSVUM Production Guides and associated information located on the FS Motorized Vehicle Use Map web pages:
<https://apps.fs.usda.gov/gtac-tools/MVUM/index.php>

24. Who should I contact when I have an ATM question?

NRM ATM Questions should be submitted to the NRM help desk:

<http://fsweb.nrm.fs.fed.us/support/helpdesk/>

For business-related travel management questions, contact your regional Travel Management, Road User Board and Trail Board representatives.

Your local Forest GIS Coordinator should be able to assist with MVUM production questions.

25. Where can I find more information on producing an MVUM?

Many MVUM FAQs can be found on the National Travel Management Website:

https://apps.fs.usda.gov/gtac-tools/MVUM/links_faq.php