E-BIKE REGULATION EVALUATION
BOARD OF DIRECTORS MEETING MARCH 12, 2021
PURPOSE

• Provide the board with an overview of the e-bike regulation evaluation

• Discuss the spectrum of e-bike regulation available

• Staff proposed rule change recommendation at the March 26 board meeting
GOALS

Develop a rule change recommendation through a transparent process that includes regular member outreach. Any recommendation will be expected to be widely accepted, sensible and sustainable rule change built on an informed foundation.

- **Widely Accepted** = Wide acceptance by all major user groups (i.e. hikers, bikers, equestrian)
- **Sensible** = A rule change and policies that effectively address the issues
- **Sustainable** = Includes both sustainable environmentally and as a long-term rule/policy
- **Informed** = Based on facts and expert advice
INFORMING THROUGH RESEARCH AND EXPERIENCE
• Federal, State, local laws and TDA regulations
• Facts and myths about e-bikes and mountain bike e-bikes (eMTB)
• Land management benchmark
• Compliance review
• Literature review and other research

INFORMING THROUGH PERSPECTIVES
• Member outreach
• Land managers’ assessments
REGULATION LANDSCAPE

FEDERAL + STATE + LOCAL LAWS

FEDERAL

• E-bikes are classified as motorized vehicles and are only allowed on motorized trails, including Bureau of Land Management (BLM) and National Forest (USFS) lands. Each of these organizations/land managers is going through a similar process as TD by attempting to clarify language and e-bike categorization.

CALIFORNIA

• Motor Vehicle Code: AB 1096 amended MVC and defines “motorized bicycle” as a moped and established new vehicle class for “electric bicycles”, classes 1-3. Many other states mirror this legislation template.

LOCAL

• Local governments have the authority to authorize the use of e-bikes on bike or pedestrian paths.

TDA POLICIES AND RULES

TRAILS MASTER PLAN (2013)

• Establishes policies for a multi-use trail system

COVENANTS RULES

Section II Common Area, Other Association Owned Property, and Amenities, subsection

Off-Road Vehicles. Snowmobiles, motor-powered bikes*, all-terrain vehicles (ATV’s), off-road motorcycles and off-road use of any motorized vehicle is prohibited on Common Areas, and other Association-owned properties, except that the Association may use such vehicles in the furtherance of its operations.

*Per CA MVC motor-powered bike is considered a moped
WHAT IS AN E-BIKE?
### Differences Between a Bike vs E-Bike

**Design**
- E-bikes are used for mobility and recreation.
- E-bikes are used similarly to bikes but can help remove barriers to biking related to commuting, carrying kids or cargo, physical limitations and/or terrain.
- E-bikes are either powered by a motor that assists when pedaling or activated by a throttle. They are designed like bicycles.

**Regulation**
- E-bikes are often used for recreational purposes, especially on trails.
- Riding an eMTB is similar to riding a traditional mountain bike, with the assistance of a small motor.
- eMTBs are either powered by a motor that assists when pedaling or activated by a throttle. In general, eMTBs are pedal-assist only.

**People for Bikes**

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#### Transportation Infrastructure
- The first sale and manufacturing of e-bikes is regulated by the Consumer Product Safety Commission.
- E-bikes are defined in a state or local traffic code for operation.
- States and cities determine which class, if any, of e-bikes are allowed on streets, bike lanes, bike paths and sidewalks.
- States and cities may set additional requirements such as speed limits, age restrictions and the use of helmets.

**PeopleForBikes.org/e-bikes**
E-BIKE FACTS

• Motorized Vehicle, Motorized Bicycle or Electric Bicycle?
  • Consumer Product Safety Commission
    • Pedal assist e-bikes with maximum **assisted** speed of 20 mph are not a motorized vehicle.“
    • CA Motor Vehicle Code definition of a motorized bicycle is a moped. E-bikes are a distinct class of vehicles.

• Safety
  • Speed
    • Downhill: No faster than the rider’s ability.
    • Flat and Uphill: electric motor assists pedaling only up to its max. speed. Speed of e-bike still relies greatly on rider’s ability. Some studies suggest conventional bikes can be faster.
  • Fire risk
    • The fire risk by e-bike batteries is negligible, similar to the 1,000s of cell phones currently on the trails.
E-BIKE MYTHS

• Trail Character
  • Trail Congestion: E-bikes will increase bike use on trails
    • Initial studies are showing e-bikes are a replacement for traditional bikes.
    • Trail usage is increasing across all user types
    • Biking, including e-bikes, is increasing as technology and price points eliminate barriers.

• Disturbance
  • Noise: E-bikes effectively silent.

• Environmental and Physical Concerns
  • Trail damage: Negligible difference between traditional MTB and eMTB.
LAND MANAGEMENT BENCHMARK

OUR NEIGHBORS

• USFS Truckee District
  • E-bikes allowed on motorized trails and roads
  • Pending Action: to allow e-bikes on 35 miles of single-track trail
    • Emigrant, Big Chief/Sawtooth, DonkeyTown area

• USFS Lake Tahoe Basin
  • Currently evaluating and developing a plan to improve e-bike access to single-track trails

• Truckee Donner Land Trust
  • Defer to policy established by USFS, adjacent neighbor and/or partner

• Town of Truckee
  • The Town does not manage any soft surface trails

• An extended benchmark is included in documents for reference
COMPLIANCE REVIEW

• All land managers, both large and small, public and private, with sworn public safety rangers or without, all rely heavily on education and the honor system to achieve voluntary compliance

• Education and Communication
  • Website
  • Map
  • Apps
  • Kiosks
  • Wayfinding Signage
  • Stewardship/ambassador programs
LITERATURE REVIEW + OTHER RESEARCH

Illustrative list of review and research performed

- **E-bike Reports**
  - USFS Truckee District East Zone Connectivity and Restoration Project Preliminary Environmental Assessment (2020)

- **E-bike Perception and User Studies**
  - Boulder County, CO E-bike Pilot Study (2019)
  - Jefferson County, CO E-bike Pilot Study (2018)
  - E-bikes on Public Lands, A Survey of E-bike Users in Colorado (2020)
  - Perceptions of Conflict Surrounding E-Bike Use on the Arizona Trails (2020)
  - Pedal Assist Mountain Bikes: A Pilot Study Comparison (2019)

- **Agency E-bike Regulation Assessments**
  - USFS Truckee District East Zone Trails and Roads Projects Assessment: *under consideration*
  - East Bay Regional Park District, CA: *e-bikes allowed on designated trails*
  - Marin Water District, CA: *under consideration*
  - Jefferson County, CO: *e-bikes allowed on designated trails*
  - Boulder County, CO: *e-bikes allow on designated trails*
  - Summit County, UT: *special e-bike permit for 65+ and medical reasons*
  - Draper City, UT: *e-bikes allowed on designated*
SELECT HIGHLIGHTS

• The bike industry is growing exponentially with the e-bike market leading
  • Q1-3 of 2020 bike sales +44%; e-bike sales were +140% in 2020

• Knowledge and understanding is catching up with rapidly progressing technology as more people have exposure to e-bikes

• Exposure to e-bikes increases general acceptance attitudes

• Landowners are evaluating various approaches to e-bike regulation

• eMTBs are a new user type with trail design and construction needs similar to mountain bikes
SELECT HIGHLIGHTS CONTINUED

• TD Member Outreach
  • Forums and Feedback Forums
    • Illustrates diversity, understanding, and perspective on the issue
    • Strong opinions
  • E-bike Survey:
    • More members are using the trails and on a more frequent basis
    • Large contingency of respondents (59%) have not ridden an e-bike
    • E-bike use enables parties of differing abilities to access trails together
    • E-bike use enables access for mobility challenged to enjoy trails
    • Hiker experience has deteriorated
    • E-bikers are older, current eMTB ownership peaks among 50-59 year olds. Those intending to purchase tend to be 50+
    • Large support for permitting e-bikes on double-track
    • Single-track e-bike acceptance strongly diverges between hikers and bikers
SPECTRUM OF OPTIONS

NO ACCESS
AMPLIFY EXISTING RESTRICTIVE RULE

ADAPTIVE MANAGEMENT
PARTIAL/LIMITED/RESTRICTED E-BIKE USE ALLOWED

FULL ACCESS
SINGLE TRACK + FIRE ROADS OPEN
GOALS

Develop a rule change recommendation through a transparent process that includes regular member outreach. Any recommendation will be expected to be widely accepted, sensible and sustainable rule change built on an informed foundation.

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- **Sustainable** = Includes both sustainable environmentally and as a long-term rule/policy
- **Informed** = Based on facts and expert advice
AMPLIFY EXISTING RULE

• **Widely Accepted** = Wide acceptance by all major user groups (i.e. hikers, bikers, equestrian)
  • Not widely accepted by all
• **Sensible** = A rule change and policies that effectively address the issues
  • Avoids the management issue rather than addressing
• **Sustainable** = Includes both sustainable environmentally and as a long-term rule/policy
  • Sustainable environmentally in that it might reduce overall trail use
  • Not a sustainable management given current usage and expected trends
• **Informed** = Based on facts and expert advice
  • Most land managers are attempting to find balance and allow access in some way
FULL ACCESS

- **Widely Accepted** = Wide acceptance by all major user groups (i.e. hikers, bikers, equestrian)
  - Not widely accepted by all
- **Sensible** = A rule change and policies that effectively address the issues
  - May present unforeseen management challenges if e-bike usage patterns increase
- **Sustainable** = Includes both sustainable environmentally and as a long-term rule/policy
  - May present unforeseen environmental impacts and could lead to increased user conflicts
- **Informed** = Based on facts and expert advice
  - Some trail systems permit e-bikes wherever conventional bikes are allowed
ADAPTIVE MANAGEMENT

• **Widely Accepted** = Wide acceptance by all major user groups (i.e. hikers, bikers, equestrian)
  • Flexible enough to allow fine tuning and adaptation in order to achieve wider acceptance over time through structured decision making
• **Sensible** = A rule change and policies that effectively address the issues
  • Gives management the flexible tools it needs to learn from experience and improve trail management for all user groups over time
  • Addresses member desire to find some solution to expand access
• **Sustainable** = Includes both sustainable environmentally and as a long-term rule/policy
  • Gives management the flexible tools to evaluate environmental impacts and respond
  • Sustainable as a policy because it is adaptable to changing conditions and needs
• **Informed** = Based on facts and expert advice
  • Adaptive management is considered best practice for land management, and is anticipated to be used in Tahoe Donner for all user groups and trail types in the future
  • Consistent with other amenity and facilities management authority
MOVING FORWARD

• MANAGEMENT LEVEL
  • Education and communication campaign
    • Trail branding and culture development
    • Trail etiquette
    • Signage – Approved 2021 Replacement Reserves Budget
  • Continued efforts to disperse trail users across the trail system

• POLICY/RULE LEVEL
  • March 26 Board Meeting: Recommendation for e-bike rule change for adaptive management approach
  • 2021 Work Plan Goal – Open Space and Trails Master Plan