




Outdoor Electric Assist Devices

Toys & Tools with Opportunity & Opposition



McHenry County
CONSERVATION DISTRICT

Presented by John Kremer
Director of Operations, Planning & Public Safety

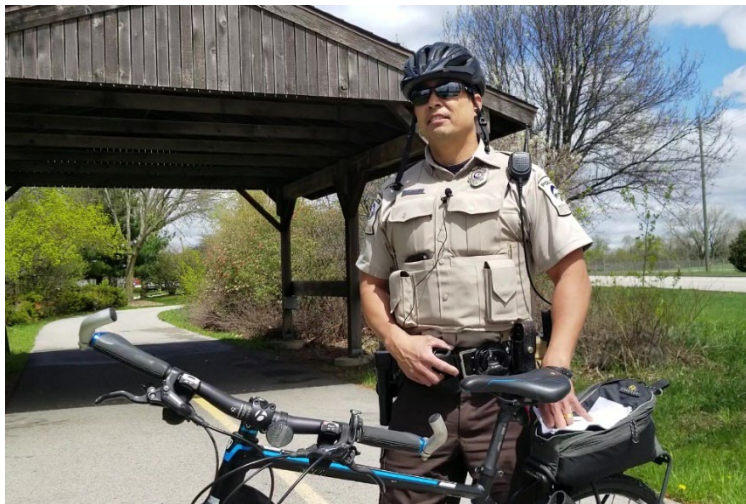


Evolution

2018 E-Bike Warning - Officer Montgomery

2021 One Wheel encounter - Chief King

2023 Time to Evolve



Electronic Recreational Devices

- Bikes
- Scooters
- Skateboards/hover boards
- Unicycles
- “Micro Mobility Device”



E-Bikes

Many Shapes & Sizes
 Industry + States = Classifications
 Unclassified = Unregulated






Overview of the 3-Class System for E-bikes

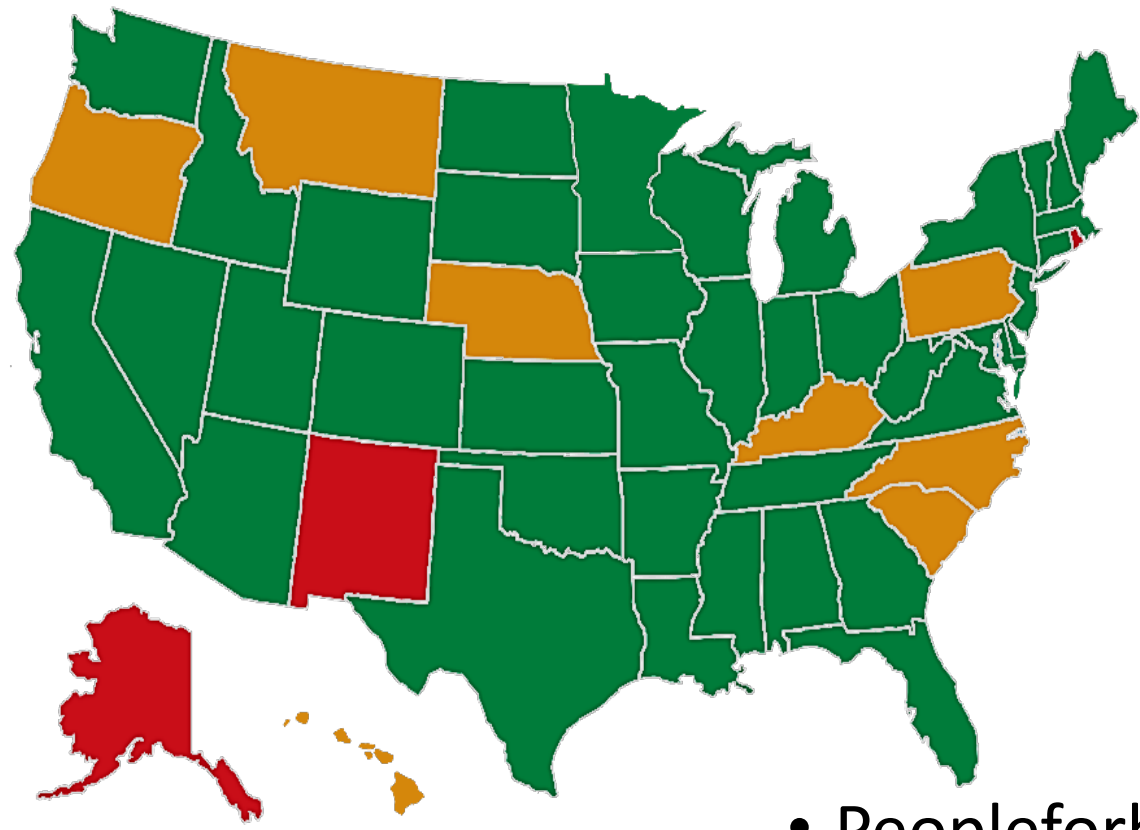
	Characteristics		Regulations
Class 1 E-bike	Provides Assistance:	Only when pedaling	Generally treated like a standard bicycle.
	Top Assisted Speed:	20 mph	
Class 2 E-bike	Provides Assistance:	When pedaling or by throttle	Generally treated like a standard bicycle. May be restricted from shared use paths or trails.
	Top Assisted Speed:	20 mph	
Class 3 E-bike	Provides Assistance:	Only when pedaling	More likely to be restricted from shared use paths or trails. May require use of a helmet, have minimum age requirements, or be subject to other regulation.
	Top Assisted Speed:	28 mph	



Industry & States Work to Guide Approach

ELECTRIC BICYCLE RULES FOR THE ROAD

<p> MODEL LEGISLATION</p>	<p>» States that have enacted PeopleForBikes' model law, which defines and regulates three classes of electric bicycles within states' motor vehicle codes, gives riders similar rights and duties to that of traditional bicycle riders.</p>
<p> ACCEPTABLE</p>	<p>» Regulated as a bicycle » Passengers allowed » No age minimum » No licensing or registration required » Can use existing bike infrastructure</p>
<p> PROBLEMATIC</p>	<p>» Regulated as a moped or motor vehicle » Confusing equipment + use requirements » Confusing licensing + registration requirements » Confusing access to bike infrastructure</p>



• Peopleforbikes



TOP 10
OFF ROAD
E-BIKE



Micro Mobility Device

No Classification = Challenges

- No limits; classifications; definitions
- Difficult to accommodate





OFF ROAD PRO



BEST

OFFROAD

SCOOTERS







MASTER

Evolving: Human vs E-Assist powered

Fast and All Terrain Capable *“Go where no “person” has gone before.”*



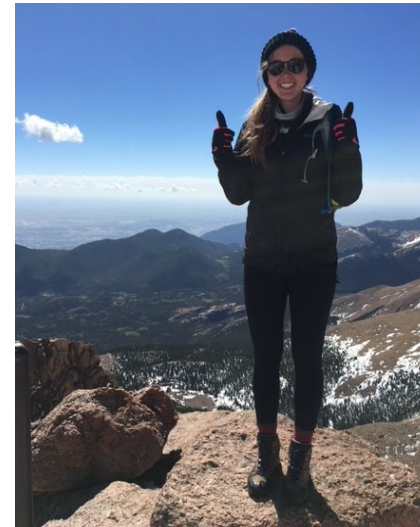
Opportunity Alternative Transportation

Reduced Carbon Footprint

Less Resources Needed to Manufacture

Could replace 27% of Transportation Greenhouse Gas
Commuter Freedom

Bus = hour/Bike = ½ hour & no schedules



Why Get an E-bike

In 2017, British researchers offered 80 people in Brighton a free e-bike for up to eight weeks. The average participant drove 20 percent fewer miles while they had an e-bike, and afterward 70 percent of them said they wanted one of their own. Even in a country as vast as the United States, almost 60 percent of car trips are under six miles—and e-bikes offer powerful advantages for daily trips. Steep inclines, for instance, become a cinch. An e-bike's extra boost lets you comfortably match the speed of car traffic while en route to a meeting—and avoid arriving in a pool of your own sweat. Particularly for those with limited mobility (like Tour de France champion Greg LeMond, who is now designing his own e-bike), the addition of battery power can be life changing.

Every trip taken by e-bike instead of automobile is a win for the planet. Even electric cars require far more resources than e-bikes to construct and operate (at 1,800 pounds, the battery of the Ford F-150 Lightning weighs as much as 233 Rad Power e-bike batteries). And according to one market estimate, e-bikes now outsell electric cars in the United States; almost 800,000 were purchased in 2021. But a look across the Atlantic shows that much room for growth remains: Germany, a country with just about a quarter of America's population, sold 1.2 million e-bikes in the first six months of last year alone.

MATERIAL WORLD

Pedal to the Metal

BY DAVID ZIPPER

As e-bike converts will attest, zooming through your neighborhood and effortlessly conquering the steepest of hills is a total blast. The added storage capacity of e-cargo bikes makes them especially viable as vehicle replacements. And at about \$1,000 for a solid entry-level electric bike (high-end versions and e-cargo bikes can be much pricier), they're affordable.

Best of all, using an e-bike in lieu of a car helps reduce the whopping 27 percent of US greenhouse gases that come from transportation.

Opportunity Fitness & Time Outdoors

Health Benefits of Physical Activity

Mental Health Benefits of Being Outdoors

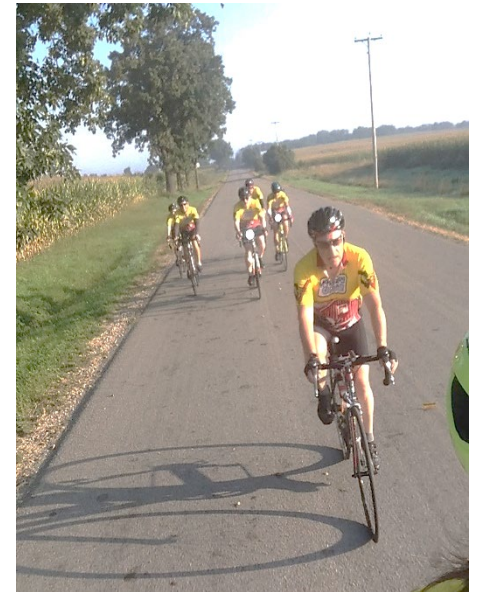


Opportunity: Users

Expanded User Groups

Seniors – Injured – Regain Fitness Level

Expanded Range - Extend Ability - Provide Opportunity



Opposition

Access and/or Impact on Remote Areas

- Bikes = History of managing
- Electric Micro Mobility Devices = Learning
- If it can....someone will!

Purest Perspective: Human vs E-Assist



Opposition

Speed/Experience

The inexperienced are now going fast.

- Past = Speed set by experience and person pedal power
- Now, a 10 year old is rolling **28** mph on a bike/**60** mph on a scooter
- If it can someone will!



Opposition Safety Perspective

Very Limited Accident Data; E-assist vs Conventional

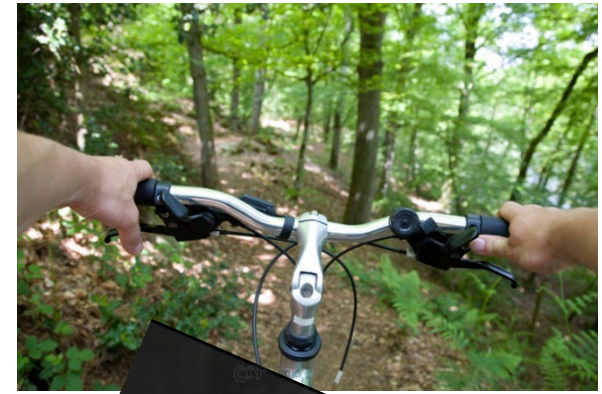
- One study by NPS shows a slight increase

NPS: NO!; then YES!; then Maybe; now study

Observations

- Cornering, Breaking, Safety Gear, Rules of the Trail

Peopleforbikes: *“It is important to practice with any new bike to feel confident starting, stopping and maneuvering.”*



Evolving to Accommodate – E-Bikes

Managed Approach vs “Wild West”
Two Approaches – ride ILLINOIS

Require Pedaling vs Regulate Speed
Classification will guide

<https://rideillinois.org/>

Pedaling “motor bike vs bicycle”
Speed – Safety

More Resources

Peopleforbikes

- <https://www.peopleforbikes.org/>

The League of American Bicyclists

- <https://www.bikeleague.org/>



Evolving to Accommodate – Micro Mobility Devices

Wild West

- No Classifications, No Parameters, No Restrictions
- Result = Agencies just say “no”
- Hope Industry & States to Work Together



PDRMA Recent Perspective

Develop an Ordinance

- Defined Parameters
- Clear & Concise
- Unique to Circumstances
- Posted – Website



Model Ordinance Components

Fit to your intent

Forest Preserves of Cook County

- All bicycle and e-bike riders must travel... under 15 mph
- **These e-bikes are allowed on trails where bicycles are allowed** (except on [single track mountain biking trails](#)):
 - **Class 1 e-bikes** – Electric bicycles when the rider is pedaling and stops assisting at 20 mph
 - **Class 2 e-bikes** – Electric bicycles ... without the rider pedaling and stops assisting at 20 mph
- **These e-bikes and other recreational devices are NOT allowed anywhere:**
 - Class 3 + gas powered + electric powered recreational devices
 - Defined



Enforcement

Keep Ordinance Simple = Enforcement Easier

- Speed vs Pedaling
- Problematic Areas: Safety Watch Program
- Safety Rather than Compliance
- Pick your Battles – Wide Open Trail vs Hills and Corners



The New Wheelchair

Rapidly Evolving Electronic Assist Device

- Exciting Advancements
- Prototypes Now Being Produced
- No Longer Confined to Smooth, Mostly Level Surface





Extreme X8 Review



Tim

All Terrain Capable

Traverse Most Trails with No Accommodation

Recent NRPA Article:

“People have told us this is life changing”



TOP TRENDS

in Parks and Recreation for 2023

Electric power, ATV wheelchairs and mental health programming make this year's list

By Richard J. Delesh

“W”hat’s a top trend? We love to throw this question around. People are curiously fascinated by what’s “breaking,” and they view lists of top trends at the turn of each new year. Just Google “top trends” and you’ll find dozens of lists for technology, fashion, fitness trends and more. One fun site for top trending topics is Exploding Topics. Recent trending topics there include: 3D printing, digital twins, fishing on, prize gaming, and catnip-potato. Cu us? Who knew?



Illustration: Jason A. Cunningham
Photo: Justin M. Smith
Captioning: Justin M. Smith
Photo: Justin M. Smith

Re-Think Public Access

Freedom

- Not just small loops.
- Full access to a site.

Ordinance Modifications

- Most agencies have a policy already.
Time to review to anticipate new tool.
- Proof, operate safely, speed limits,
where people could walk
- Be concise but vary with situation:
Bike Trail vs Hiking Trail



Conclusions

E-bikes Have the Most Definitions = Easier Micro Mobility Devices More Challenging

- Looking for help from the industry.

Ordinances/Policy Evolution

- Fit your situation
- Look to ride Illinois, PDRMA, and national bike organizations
- References

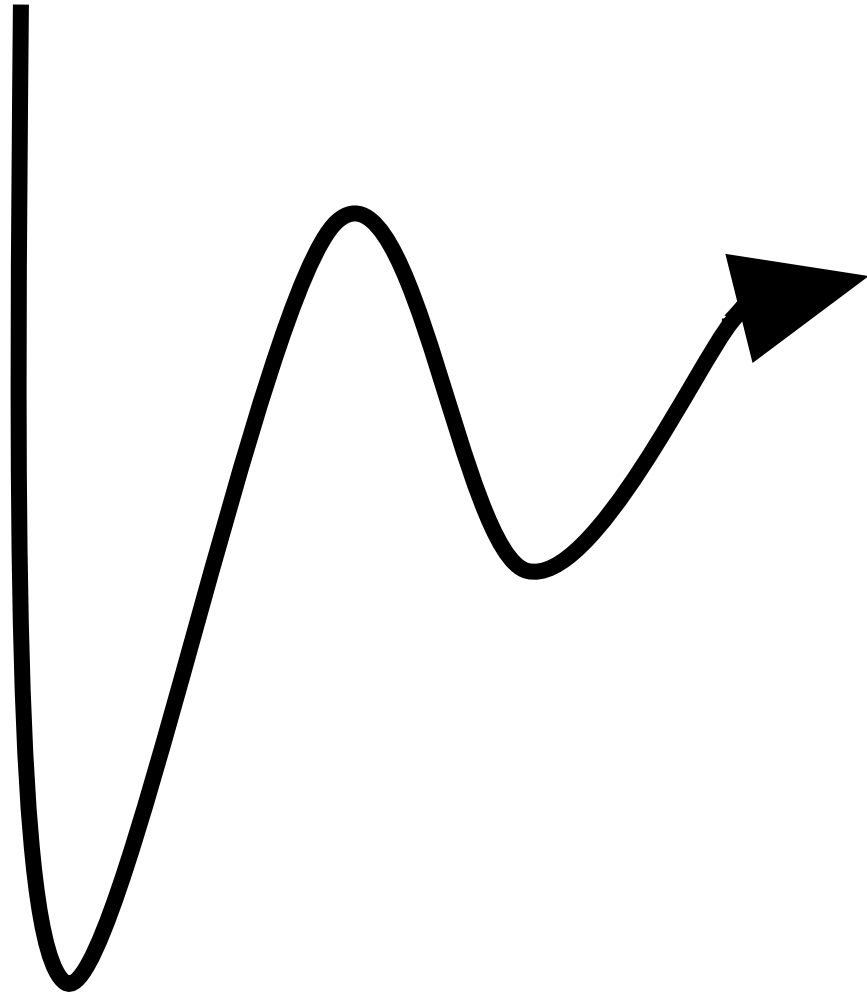
Electronic Assist Devices are Evolving

- Exciting for opening areas of parks/preserves
- Review ordinances





Questions



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