Resources for policy on powered mobility devices

Mary Shaw, July 2019, Version 4

Larry Simms and Joe Stafford have both recently asked me for my notes on e-bikes and other powered mobility devices, and in response Joe shared some background on the PA laws. I've been involved in various discussions on this subject, dating back to the ADA mobility requirement in 2010, with DOMI, Bike Pgh, SPC, NPS, ATA, Friends of the Riverfront, and numerous other trails. Discussions about regulation in Pittsburgh dates back at least that far.

This document organizes several things I've shared in the past ("the Shaw files", as Larry calls them) plus some new material and some additional resources. It is online in the reports section of https://furnace2furnace.org

Disclaimer: I am not a lawyer. I am not a professional engineer, though I am an honorary Life Fellow of a professional engineering society. From my day job I bring skills in design, complex systems, and human factors.

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1 Summary

Electric mobility devices are evolving rapidly. Local trails have policies (Sections 3.8, 3.9, 3.10), as does York County PA (Section 3.12), but these are well not enforced. DCNR presented positions to PPAC in April 2019 (Section 3.5). Pittsburgh is formulating policy now. The policies are constrained here and elsewhere by Federal (Sections 3.1, 3.7) and State (Section 3.2, 3.4, 3.3.6) laws. At least one local university is thinking about campus policy (Section 3.11).

This problem has been brewing for a decade – I have correspondence dating to 2010 about creating trail and city policies (Section 4.1). There is considerable public confusion about what is allowed and considerable disagreement about what should be allowed (Sections 4.2, 4.3, 4.4). Indeed, there is considerable confusion even about definitions. I have written four explainers to address this confusion (Sections 2.1, 2.2, 2.3, 2.4). Thirteen states use a 3-tiered e-bike classification system (Section 3.4), which generally makes sense (though I'd rather see 15mph as limit on Class 1):

Class 1: no assist unless you're pedaling, no assist above 20mph
Class 2: throttle is ok, no assist above 20mph
Class 3: no assist unless you're pedaling, no assist above 28mph, must have speedometer

In response to an early version of this document, Joe Stafford reported that he (as head of the PA Bicycle Access Council at the time) drafted the bill that became Act 154 of 2104 and amended PA Title 75 to allow eBikes on PA roads. Joe says he intended the term "operable pedals" to mean the cyclist must operate the pedals to engage the motor – in other words, to allow what became Class 1 above and to exclude what became Class 2. (Section 3.3). Statements from the Bureaus of Forestry and Parks to PPAC are in line with this (Section 3.5).

The rules should be (a) understandable, (b) appropriate to the operating environment and (c) enforceable. This raises several questions:

Should there be one rule for all places to ride? That would be easiest to explain, but trails are different from bike lanes – pedestrians and bicycles mix on the trails, but not in the bike lanes. Further, different trails may present different physical conditions that lead to different policies (Section 3.1, 3.7), and bicycle regulations already prohibit bikes on sidewalks in some but not all locations.

How can an observer tell whether a mobility device is allowed? This is especially a concern of trails where volunteers, rather than enforcement officials, are the most likely point of contact. A distinction involving "750 watts" is not helpful. Perhaps a Class 1/2 distinction based on the presence of a throttle would be. This also affects how retailers and outfitters advertise their equipment; in the past they have too often claimed that their e-bikes could be used in places where they were in fact forbidden

What should be regulated, the vehicle or the operator? ADA rules are, in effect, special permissions for certain operators. However HIPPA prevents trail operators from inquiring into the disability, thereby opening a loophole for people to misrepresent the extent of their disabilities. For that reason, trails seem to be ignoring the ADA distinction – which leaves us regulating the vehicles.

What can be assumed about bicyclists? Like most people, they are casual about following the rules when it suits them not to, and they are more willing to argue about specific details than to understand them. Moreover, bicyclists are not all alike, ranging from "strong and fearless" to "interested but concerned" but willing to engage in settings they perceive as safe (Section 2.3).

Discussion of mixing bicycles with mobility shuttles in Junction Hollow) has focused on the speeds they will operate at. The laws of physics say that the damage a moving object can do (its *splat factor*) increases with both the weight of the object and the square of its speed. A little arithmetic and comparison of various scenarios shows that (a) raising the target speed of shuttles from 15 to 20mph is a really bad idea; (b) mixing shuttles with cyclists isn't a very good idea either (Section 2.2). Some will argue that this is a not relevant because we routinely see cyclists mixing with automobiles and trucks on streets with speeds much higher than 25mph. That's why it's important to recognize the different types of bicyclists (Section 2.3) – it's the "strong and fearless", not the "interested but concerned" who are mixing it up with traffic.

A related consideration is that someone riding an ordinary bicycle at 20mph will certainly have spent enough time on the bike to know how to control it – but this is not the case for someone who buys a 20mph e-bike and simply climbs aboard.

Whatever policies are enacted should be explained clearly to retailers, and there should be penalties for retailers who represent a mobility device as "allowed on trails" when in fact it is not. Penalties should include fines and mandatory refunds to anyone who purchased a device based on false information.

Similarly, police and other enforcement people should be trained in the actual policy and its implementation. Penalties should be published so the policies can actually be enforced.

There isn't much discussion of electric personal mobility devices other than e-bikes here. They don't have pedals, so they are excluded by current rules. The progress of technology calls for changing this. I haven't thought very hard about them, but some might deserve consideration, subject to the considerations above. Much of the discussion about weights and speeds applies

- Electric skateboards don't weigh much so don't have huge spat factors, but they can go over 20mph (and I've been passed by them while biking at what seemed like a reasonable trail speed), so it's worth thinking about how well they can be controlled if you're just standing on them.
- Some Segways now come in under the 100-lb limit. Even if they can't achieve high speeds, their operation is rather different from other trail users – they can change direction unpredictably.

My own current opinion, subject to revision as the discussion proceeds:

- For clarity, Pennsylvania should join numerous other states in adopting the three-class definition of e-bikes (Section 3.4).
- On sidewalks, e-bikes should not be allowed but current law should continue for unpowered bikes.
- On multi-use paths where bikes are mixing with pedestrians, only allow Class I ("no power unless you're pedaling") with a limit of 15mph. I would prefer the restriction to ADA use, but I recognize the practical difficulties. I also recognize that 20mph may be becoming the industry standard, so the 15mph limit falls to enforcement rather than equipment limitation, alas.
- On bike lanes and cycle tracks, allow Class I and Class 2. I don't at the moment have an opinion about 15 vs 20mph as the speed limit, but I'm leaning to 15.
- No internal combustion in any of these places.
- Age limit 16 for any powered vehicle, per PA law.
- Education of retailers and enforcers (both police and trail personnel) on what can be used where.
- Penalties for retailers who sell or rent e-bikes and misrepresent the places they can be used.
- Published penalties for riding e-bikes where they don't belong, to enable enforcement.

2 Explainers

2.1 What is a “scooter”?

When I made this up, the prevailing power restriction was 15mph. If manufacturer standards have changed so much that only 20mph e-bikes, even Class 1, are being made, that would be a shame; it would force a change to 20mph on the vehicle with a (largely unenforceable) regulatory 15mph limit.

“Scooter” is a really, really unhelpful description

“Scooter” means many different things. Only a few are permitted on trails. This is my best understanding of the most common examples, to illustrate the confusion. Retailers, especially, need to be aware that only the unpowered ones are “trail-friendly”; even medical mobility scooters and pedal assist bikes should be used only by people with medical mobility impairments.

	Kick scooter and its cousin, the skateboard. Also strider bikes without pedals. No motor, **no problem.** Enjoy the trail.		**Pedal assist e-bike,** rider must be pedaling to get power assist, up to 15mph. **May be used by people with medical mobility impairment**
	Electric scooter, electric skateboard, hoverboard. Also Segway. Supply power without the user pedaling. **Not permitted on trails.**		**Electric moped,** has operable pedals but runs without them on throttle only. **Not permitted on trails.** Seen here in the wild near McKeesport on the trail
	Mobility scooter and other motorized wheelchairs. **May be used by people with medical mobility impairment.**		**Commuter electric scooters** such as Scoobi. Go faster than 15mph on throttle control, no pedals. **Not permitted on trails**
	Gasoline moped. has operable pedals but runs without them on throttle only. **Not permitted on trails.**		**Gasoline-powered motor scooter.** Internal combustion, throttle-only operation, not even decorative pedals. No, no. **Not permitted on trails.**

In Pennsylvania a MOPED must have operable pedals, limited power, max speed of 25mph. The operator doesn’t actually have to pedal in order for the machine to go. It may be gas or electric. See https://www.dot.state.pa.us/Public/DVSPubsForms/BMV/BMV%20Fact%205Sheets/fs-momo.pdf

Under ADA, a wheelchair is “a manually-operated or power-driven device designed primarily for use by an individual with a mobility disability for the main purpose of indoor or of both indoor and outdoor locomotion.” People with disabilities are allowed to use them on trails. ADA also recognizes “other power-driven mobility device” (OPDMD), which are powered devices that may have been designed principally for other purposes. Facilities may limit the classes of OPDMDs they can accommodate. https://www.ada.gov/opdmd.htm / Local trails have done so, generally allowing only electric pedal-assist bikes that require the user to pedal and are limited in power and weight.

2.2 Weight matters, not just speed

Summary; (a) raising the target speed of shuttles from 15 to 20mph is a really bad idea; (b) mixing shuttles with cyclists isn't a very good idea either

It bugs me that the target speed for the shuttleway in Junction Hollow has gone from 15mph last year to 20mph this year.

It also bugs me that speed is the only factor being used to justify the mix of vehicles.

Weight matters too. The amount of kinetic energy in the moving vehicle increases with both weight and the square of the speed. Let's call that the "splat factor" -- how big a mess is it going to make if the vehicle hits something (like you, for example).

Another thing to consider it the skill of the operator. By the time cyclists are going 15 mph or more they have spent enough time on the bike to develop road savvy and bike handling skills. Contrast that with the situation of someone who hops on an e-bike, mashed down on the throttle, and launches onto the trail. I'm ignoring that here, though.

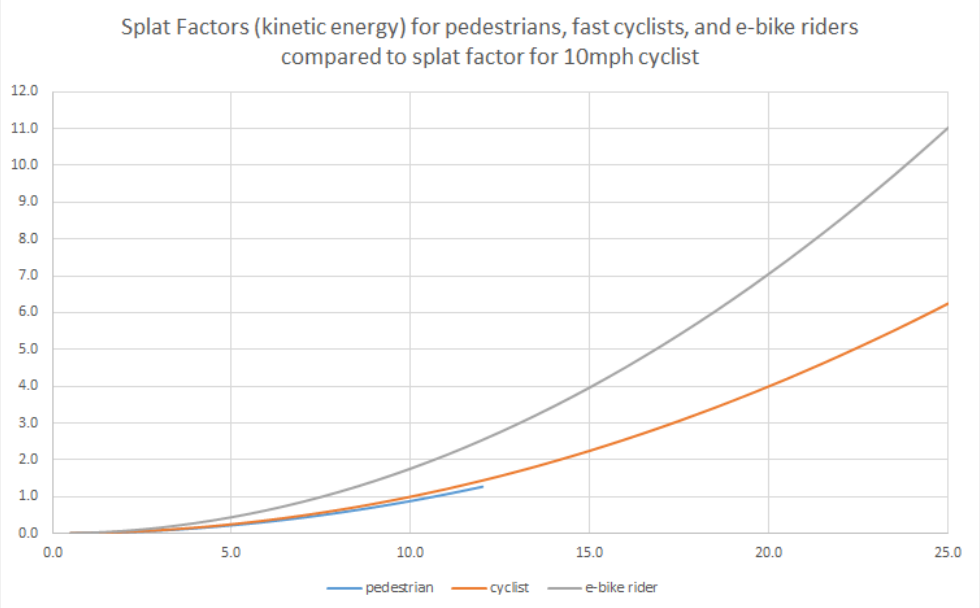
Let's look at the impact of weight on the splat factors of different sorts of vehicles:

150-lb pedestrians (FAA standard weight for a passenger is 170 lb, this recognizes kids), and they don't run faster than 5-min miles
150-lb cyclist on 20-lb bike (fast cyclists are leaner than average, ride light bikes, don't carry much)
180-lb cyclist with 20 lbs of stuff in backpack on 100-lb ebike
Navya 11-passenger shuttle (the cute little one discussed last year), 2400kg (5280lb) curb weight
Navya 11-passenger shuttle, 3450kg (7590lb) gross weight

If anyone feels strongly that these are the wrong numbers, it's easy to change them. Note, though, that a 10-20lb change in the assumed weight of a person isn't going to make much difference.

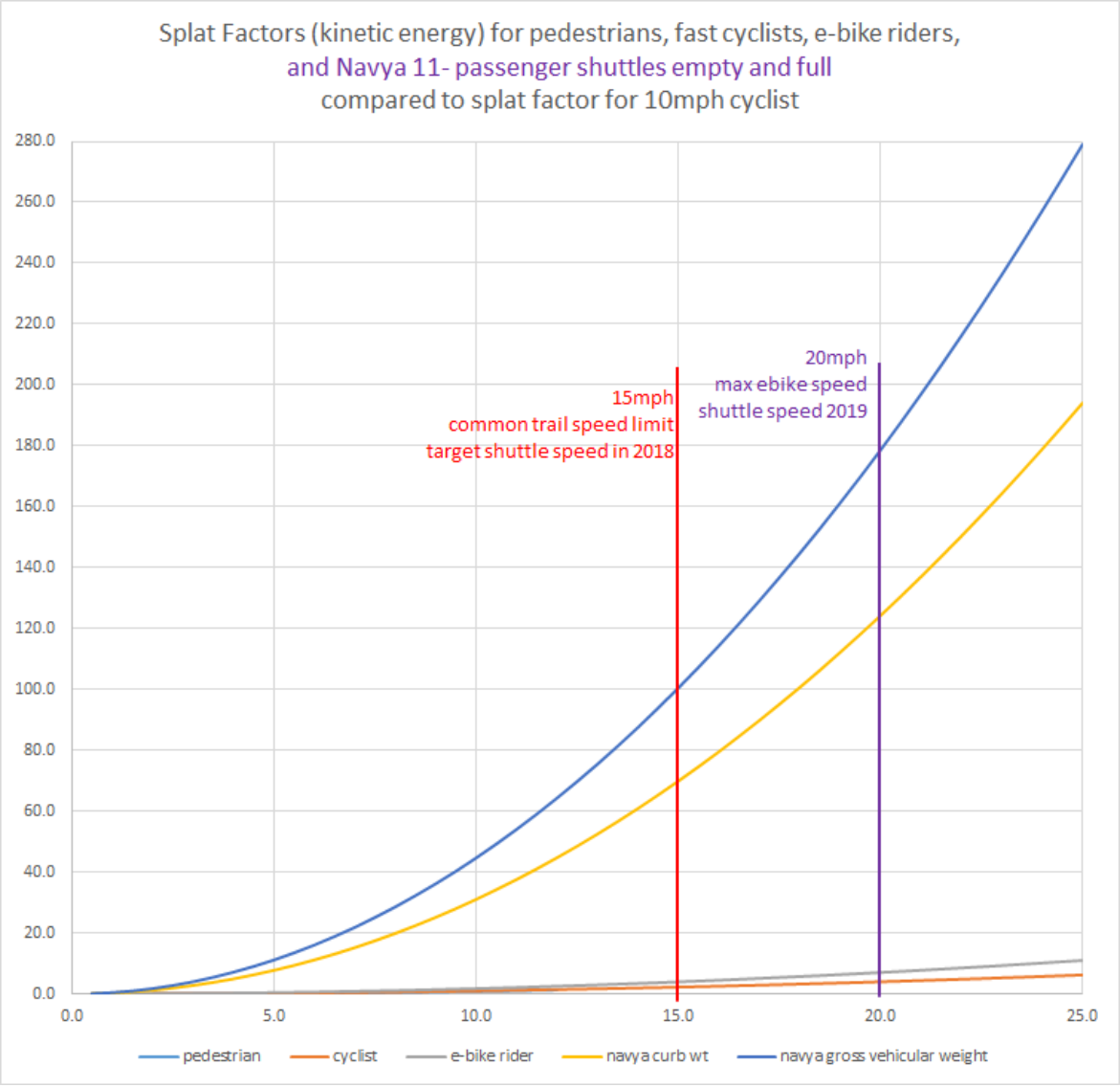
I normalized the numbers to a cyclist going 10 mph, since "twice the splat factor of a 10mph cyclist" is easier to understand than "17000 joules" (who wants to talk about joules, anyhow?)

First, let's just compare the first three:



This says the 15mph speed limit makes sense -- the 15mph cyclist has twice the splat factor of the 10mph cyclist, the e-bike rider about four times. But who really believes that the throttle-controlled e-bikers are actually going to obey the 15mph limit? Their sense of speed is attuned to cars, they don't really have an intuition for what 15mph feels like, so they just mash down on the throttle. We can hope that they slow down around slower traffic -- but regular comments from trail users suggest that the fast riders are also speeding and not giving warning. At 20mph, though, the fast bikers have a splat factor about the same as e-bikes at 15mph, whereas the e-bikes have a splat factor 75% bigger than that.

Now let's throw some shuttles into the mix. I looked up the specs on the Navya, the cute 11-passenger "toaster" shuttle that was used as an example last year.



Now all the pedestrians and cyclists sort of run together in comparison to the 100-200 times greater splat factors of the shuttles. Plus the 75% increase in splat factor from 15mph to 20mph looms really, really large. We really need to push back on this shift.

Bear in mind also that the mess made when two moving vehicles hit each other head-on is the sum of their two splat factors.

2.3 Types of bicyclists

Distinguishing different types of cyclists is pertinent to this discussion because so many different people have so many different intuitions about how much exposure to traffic a cyclist will tolerate. This affects the ways the cyclists will self-select among different roads (directly down Fifth Ave vs zigzagging through neighborhoods) and different facilities (the ongoing discussion of the design of two routes through Junction Hollow, for which trying to separate "recreational" from "commuter" cyclists is proving unhelpful). So it's important to establish a shared vocabulary for describing different types of cyclists.

I can't find a standard set of definitions that identifies different types of bicyclists in a way that supports productive discussions of different usage scenarios. Inventing a new one would not be constructive. The best I've seen (and I think I've seen it used by Pittsburgh DOMI) was developed in Portland.

Note that the vast majority of the cyclists are "Interested but concerned", willing to get involved but cautious, especially about safety. If only because of its size, this is the group from which most regular cyclists will be recruited (and possibly then recruited into the bolder groups). For this reason, any discussion of mixing bicyclists and electronic mobility devices must understand and take seriously the concerns of this group.

I would criticize the typology on technical grounds: A classification scheme or typology that puts such a large fraction of its subjects in a single bin cries out for a refinement that subdivides that category.

A further comment: These categories refer to peoples' willingness to ride on roads. We should be cautious about relying on them too heavily for trails, as there are quite a few adults who ride almost exclusively on trails or very-low-traffic neighborhood streets. They probably fall in the low end of "interested but concerned, and they're likely to be reluctant to share a shuttleway with even small shuttles. In addition, these categories don't seem to address children. Perhaps we also need something like "I'll take my 0- to 8-year old there" and "It's ok for my pre-teen to ride there".

The Portland typology is described at https://bikeportland.org/2006/12/07/what-type-of-cyclist-are-you-2650

> ### What type of cyclist are you?
>
> Posted by Jonathan Maus (Publisher/Editor) on December 7th, 2006 at 8:13 am
>
> PDOT is in the midst of updating their Central City Transportation Management Plan. As part of the update, they've asked city bicycle coordinator Roger Geller to draft a white paper that identifies the cycling issues in Portland's Central City (more on that later).
>
> In order to help explain various bikeway treatments to (non bike-geek) city planners and engineers, Geller places Portland cyclists in one of four general categories. I've listed them below followed by Geller's description taken directly from a preliminary draft of the document:
>
> **The Strong and Fearless**
> The "Strong and the Fearless" comprise perhaps 2,000 or fewer cyclists in Portland, representing well less than 0.5% of the population. These are the people who will ride in Portland regardless of roadway conditions. They are 'bicyclists" riding is a strong part of their identity and they are generally **undeterred by roadway conditions**—though likely few are courageous enough to venture too far up West Burnside into the West Hills.
>
> **The Enthused and the Confident**
> The "Enthused and the Confident" are those who have been attracted to cycling in Portland by the

significant advances the city has made developing its bikeway network and supporting infrastructure over the past 16 years. They are **comfortable sharing the roadway with automotive traffic**, but they prefer to do so operating on their own facilities. There are perhaps now more than 15,000 of this group riding their bicycles regularly in the city, comprising perhaps 25,000 Portland citizens, or 5% of the population.

The Interested But Concerned

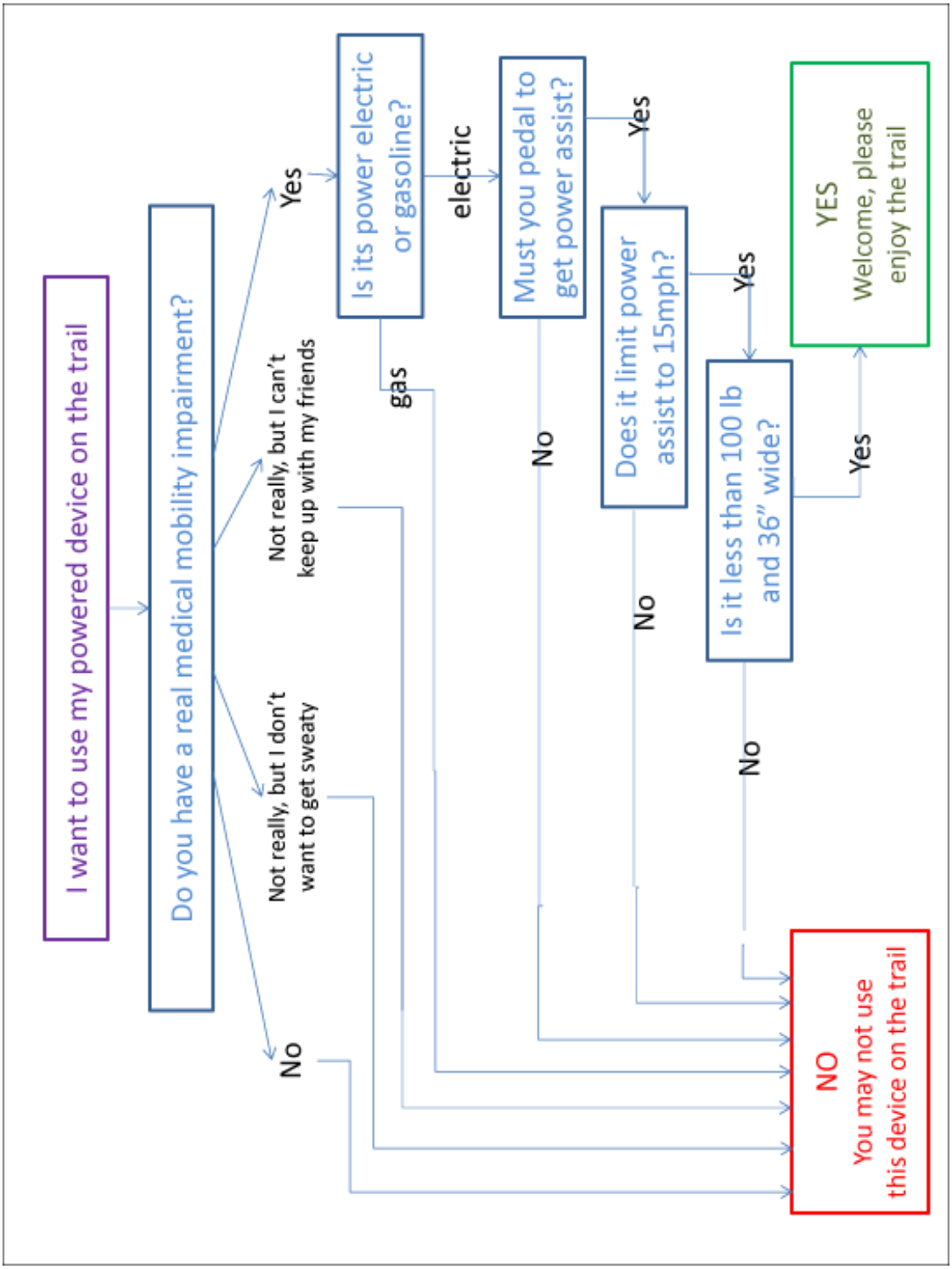
A much larger demographic, representing the vast majority of Portland's citizens, are the "interested but concerned." These residents are **curious about bicycling**. They are hearing messages from a wide variety of sources about how easy it is to ride a bicycle in Portland, about how bicycling is booming in the city, about "bicycle culture" in Portland, about Portland being a "bicycle-friendly" city, and about the need for people to lead more active lives. They would like to ride more. But, they are afraid to ride. There are probably 300,000 in this group (with perhaps 2,000 who ride regularly), representing 60% of the city's population. They would ride if they felt safer on the roadways—if cars were slower and less frequent, and if there were more quiet streets with few cars and paths without any cars at all.

No Way, No How

Perhaps one-third of the city's population falls into the last category of 'cyclist.' This is the "no way, no how" group who is currently not interested in bicycling at all, for reasons of topography, inability, or simply a complete and utter lack of interest.

2.4 Decision tree for pedal assist as ADA accommodation

This explains the rule that motorized vehicles are banned from a trail except for pedal-assist bikes used by people with genuine medical mobility impairments. Vehicles must be electric, pedal-assist only (no throttle), less than 100 lbs, and less than 36" wide. It was written when the power limit was 15mph; as noted elsewhere that may have been overtaken by events.



3 Regulations and policies

3.1 Federal trail rules under ADA

Title II of the ADA regulations, section 35.137 on Mobility devices at https://www.ada.gov/regs2010/titleII_2010/titleII_2010_withbold.htm says

§ 35.137 Mobility devices.

- **(a) *Use of wheelchairs and manually-powered mobility aids.* A public entity shall permit individuals with mobility disabilities to use wheelchairs and manually-powered mobility aids, such as walkers, crutches, canes, braces, or other similar devices designed for use by individuals with mobility disabilities in any areas open to pedestrian use.**
- **(b)**
  - **(1) *Use of other power-driven mobility devices.* A public entity shall make reasonable modifications in its policies, practices, or procedures to permit the use of other power-driven mobility devices by individuals with mobility disabilities, unless the public entity can demonstrate that the class of other power-driven mobility devices cannot be operated in accordance with legitimate safety requirements that the public entity has adopted pursuant to § 35.130(h).**
  - **(2) *Assessment factors.* In determining whether a particular other power-driven mobility device can be allowed in a specific facility as a reasonable modification under paragraph (b)(1) of this section, a public entity shall consider—**
    - **(i) The type, size, weight, dimensions, and speed of the device;**
    - **(ii) The facility's volume of pedestrian traffic (which may vary at different times of the day, week, month, or year);**
    - **(iii) The facility's design and operational characteristics (*e.g.*, whether its service, program, or activity is conducted indoors, its square footage, the density and placement of stationary devices, and the availability of storage for the device, if requested by the user);**
    - **(iv) Whether legitimate safety requirements can be established to permit the safe operation of the other power-driven mobility device in the specific facility; and**
    - **(v) Whether the use of the other power-driven mobility device creates a substantial risk of serious harm to the immediate environment or natural or cultural resources, or poses a conflict with Federal land management laws and regulations.**
- **(c)**
  - **(1) *Inquiry about disability.* A public entity shall not ask an individual using a wheelchair or other power-driven mobility device questions about the nature and extent of the individual's disability.**
  - **(2) *Inquiry into use of other power-driven mobility device.* A public entity may ask a person using an other power-driven mobility device to provide a credible assurance that the mobility device is required because of the person's disability. A public entity that permits the use of an other power-driven mobility device by an individual with a mobility disability shall accept the presentation of a valid, State-issued, disability parking placard or card, or other State-issued proof of disability as a credible assurance that the use of the other power-driven mobility device is for the individual's mobility disability. In lieu of a valid, State-issued disability parking placard or card, or State-issued proof of disability, a public entity shall accept as a credible assurance a verbal representation, not contradicted by observable fact, that the other power-driven mobility device is being used for a mobility disability. A "valid" disability placard or card is one that is presented by the individual to whom it was issued and is otherwise in compliance with the State of issuance's requirements for disability placards or cards.**

The US Department of Justice provides an overview of the 2011 ADA regulations that require accommodation at https://www.ada.gov/opdmd.htm

3.2 PA definitions of electric bikes and mopeds

From PA Title 75 Sec 102, definitions

> **"Electric personal assistive mobility device" or " EPAMD."** A self-balancing, two-nontandem-wheeled device designed to transport only one person with an electric propulsion system.
>
> **"Electric vehicle." A** motor vehicle which operates solely by use of a battery or battery pack and which meets the applicable Federal motor vehicle safety standards. The term includes a motor vehicle which is powered mainly through the use of an electric battery or battery pack but which uses a flywheel that stores energy produced by the electric motor or through regenerative braking to assist in operation of the motor vehicle.
>
> **"Motor vehicle."** A vehicle which is self-propelled except an electric personal assistive mobility device or a vehicle which is propelled solely by human power.
>
> **"Motorized pedalcycle."** A motor-driven cycle equipped with operable pedals, a motor rated no more than 1.5 brake horsepower, a cylinder capacity not exceeding 50 cubic centimeters, an automatic transmission, and a maximum design speed of no more than 25 miles per hour or an electric motor-driven cycle equipped with operable pedals and an automatic transmission powered by an electric battery or battery-pack-powered electric motor with a maximum design speed of no more than 25 miles per hour.
>
> **"Pedalcycle."** A vehicle propelled solely by human-powered pedals or a pedalcycle with electric assist. The term does not mean a three-wheeled human-powered pedal-driven vehicle with a main driving wheel 20 inches in diameter or under and primarily designed for children six years of age or younger.
>
> **"Pedalcycle with electric assist."** A vehicle weighing not more than 100 pounds with two or three wheels more than 11 inches in diameter, manufactured or assembled with an electric motor system rated at not more than 750 watts and equipped with operable pedals and capable of a speed not more than 20 miles per hour on a level surface when powered by the motor source only. The term does not include a device specifically designed for use by persons with disabilities.
>
> **"Vehicle."** Every device in, upon or by which any person or property is or may be transported or drawn upon a highway, except devices used exclusively upon rails or tracks. The term does not include a self-propelled wheel chair or an electrical mobility device operated by and designed for the exclusive use of a person with a mobility-related disability.

PA Act 154 of 2014 regarding pedalcycles with electric assist

https://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2014&sessInd=0&act=154&mobile_choice=suppress

This act adds "pedalcycle with electric assist" to the definition of "pedalcycle" and says that no one under 16 years of age shall operate a pedalcycle with electric assist. (it also defines "neighborhood electric vehicle")

PennDOT provides guidance on mopeds, motor-driven cycles and motorcycles at

https://www.dot.state.pa.us/Public/DVSPubsForms/BMV/BMV%20Fact%20Sheets/fs-momo.pdf

The definition covers both engines and electric motors. Confusingly, it largely refers to brake horsepower rather than wattage. I would include a pointer to the actual law, but I can't find one. The definition of "Moped" in this document matches "Motorized pedalcycle" in Title 75, and the note on "pedalcycle with electric assist" matches Title 75.

Two items of interest:

> The definition of "pedalcycle with electric assist" is interpreted by many to only require operable pedals (that is, pedals that can be used if the operator chooses to), not that power is only supplied when the operator is actually pedaling – though the person who drafted the legislation says he intended to require the operator to actually pedal (Section 3.3). In terms of Section 3.4, these are closer to Class 2

than Class 1, and we need the option of a Class 1 restriction. This is a clear source of confusion with the very similar “pedal assist”, which does require the operator to pedal.

This document says that a “motorized scooter” does not have a seat or saddle for the driver. So calling Scoobis “scooters” adds to the confusion.

> A motorized scooter is a 2-wheeled vehicle powered by an engine or an electric motor and does not have a seat or saddle for the driver. These vehicles are not exempt from titling and registration requirements as set forth by PennDOT and would be required to pass equipment standards and inspection requirements. However, these vehicles do not comply with the equipment standards and inspection requirements for motor vehicles, and cannot be titled or registered within the commonwealth. In addition, these vehicles cannot be operated on Pennsylvania roadways or sidewalks.

3.3 Reflections from author of e-bike legislation

Joe Stafford was the Executive Director of the PA Bicycle Access Council through 2017. He drafted the 2014 legislation that allowed e-bikes on PA roads. After I sent him version 2 of this document he sent some reflections on that legislation with permission to share them. This paraphrases comments in his message.

His most significant comment is "I am the one … who wrote the bill that amended Title 75 to include e-Bikes to be allowed on Pennsylvania roadways. I wrote the bill in 2010 that ultimately became Act 154 of 2014. … At the time of listing the specification to be included in the Vehicle Code definitions, I meant the term operable pedals to mean, operable pedals used to engage the motor. I had intended to exclude throttle-controlled devices (now Class II) in the legal definition, but didn't say so. My Bad. If any group or the courts wants to probe the intent of the law passed by the General Assembly to clear up any misinterpretation, that would be my response. "

Joe is principally a road cyclist, not so much a trails cyclist. When he started working on e-bike legislation he wanted to put e-bike performance in context of both unpowered bicycles and motorcycles. So "When it comes to my positions, I am thoughtfully biased by my experience as a licensed motorcycle operator. I took and passed the Motorcycle Safety course and owned a 750cc motorcycle for a few years. I literally took the course to compare and contrast the operation of a "single track" powered vehicle on the road to improve myself as a bicycle advocate. This was before the e-Bike boom, but not much before. So, whenever I hear that "there's no difference" in e-Bikes from a non-powered bicycle, I know that is not true. Of course, there are different handling characteristics. I test rode many versions of e-Bikes at a dealer location when developing my experience and gain background in what's available. "

Joe wrote the Title 75, Chapter 35 section that says, No person under 16 may operate an e-Bike. "That age restriction was based on my experience as a motorcycle operator… persons under 16 do not have the opportunity to comprehend the rules of the road. "

The PA laws interact with HR727 of 2002 (https://www.congress.gov/bill/107th-congress/house-bill/727/text), which made low-speed electric bicycles subject to the Consumer Product Safety Act. This seems to say that "low speed electric bicycles" are basically the same as PA's "pedalcycle with electric assist" and are NOT motor vehicles, which appears to contradict the PA definition of motor vehicle. Joe says, "There must be more discussion on the interpretation and applicability of HB 727 (2002 Congress). I can make the argument that "operable pedals" means used to engage the motor. The omission of language that throttle only versions are allowed is a reach, IMO. The industry efforts to add Class II can be used as evidence of that. Also, there needs to be a clearer understanding of States' rights to regulate e-Bikes. What does section (d) mean when it says, "…shall supersede any State law…". What can Pennsylvania do? And again, section (c) says, "To further protect the safety of consumers who ride [e-Bikes] … may amend … as appropriate and necessary." I took the view that HB 727 was solely meant to define an e-Bike as a non-motorized vehicle so that DOTs would not require all the requirements of licensing, registration, insurance and standard safety equipment. "I was in the room" in 2008 when PennDOT addressed the House Transportation Committee to offer its opinion for such requirements to be road legal. At that time, there was no discussion or consideration for trails. I had just ridden my first e-Bike at InterBike in 2007. It wasn't until 2010 when a local bicyclist was cited in York County that I was asked to write legislation to make e-Bikes road legal."

And, Joe adds. "I like the element you presented for penalties for e-Bike retailers who knowingly or unknowingly pass along incorrect information on where e-Bikes may be used. I was actually considering a Class Action law suit, but never got around to developing that idea. "

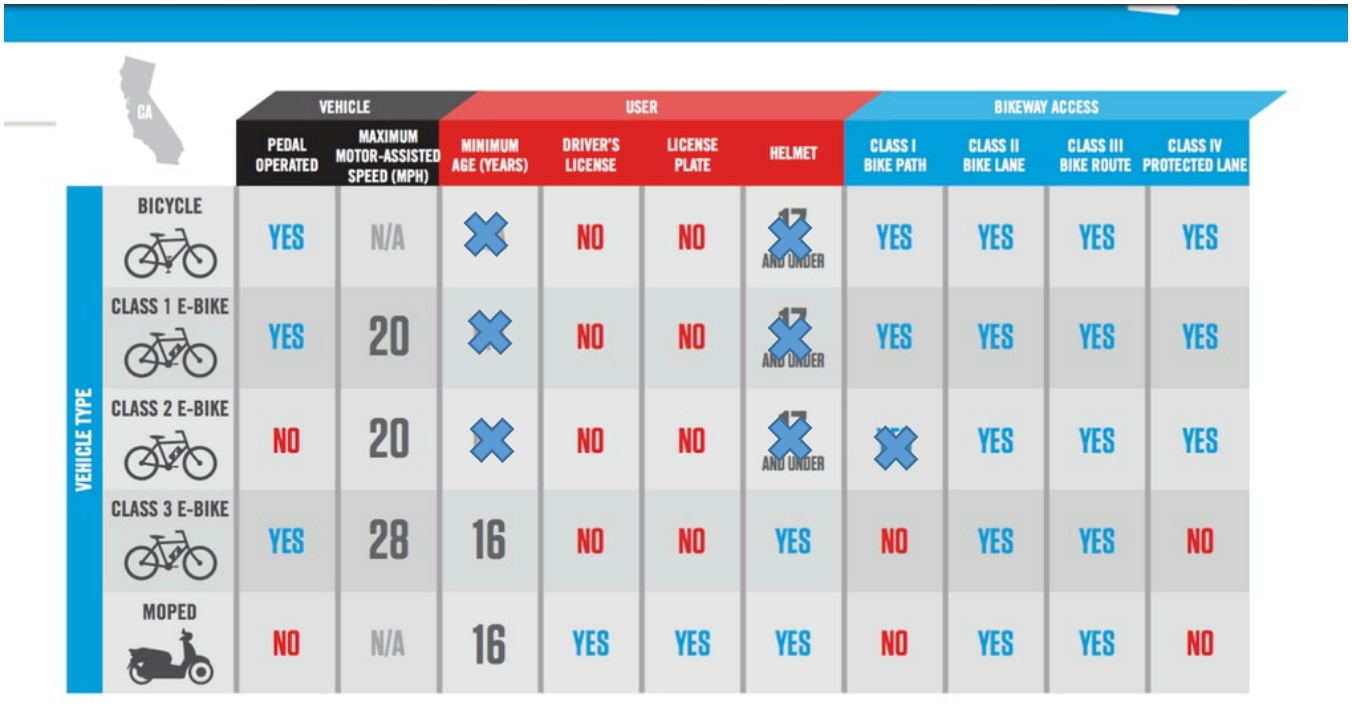
3.4 Three "Classes" of e-bikes

This is quoted from the NCSL primer discussed in Section 3.6. As far as I know, it's the one commonly used by municipalities and manufacturer.

Note that the definition of Class 1 is pedal-assist only but has a top speed of 20pmh. Note also that the definition of Class 2 says the power cuts out at 20mph, which is inconsistent with the CPSC interpretation in the NCSL primer.

Class 1 electric bicycle	A bicycle 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 20 miles per hour.
Class 2 electric bicycle	A bicycle 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 3 electric bicycle	A bicycle 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 and is equipped with a speedometer.

CycleVolta has a web page (https://www.cyclevolta.com/what-are-classes-e-bikes-where-can-e-bikes-be-ridden/) explaining these in more detail, including a table explaining California rules. Note that this table permits class 2 e-bikes on Class 1 bike paths, which is not consistent with, for example, the descriptions of Pennsylvania thinking in Sections 3.3 and 3.5. I'm not sure what the CA definitions of the other bikeway classes are; there may be discrepancies there as well. In addition, PA law has a minimum age of 16 for all classes of e-bikes and a 12-year-and-under requirement for helmets. I offer this table as a format for explaining our rules – with correct values in the cells.



3.5 PA DCNR: Bureau of State Parks and Bureau of Forestry statements to PPAC

The April 19, 2019 minutes of the PennDOT Pedalcycle and Pedestrian Advisory Committee includes these statements from the Bureau of State Parks and the Bureau of Forestry. I was not able to determine whether these are points for discussion or confirmed policies, though the Bureau of Forestry statement implies policy. Whatever the official status, the intent is clearly to restrict e-bikes to Class 1, "must pedal to get power" e-bikes.

Bureau of Forestry:

Thank you for your question asking "Can pedal-assist eBikes 750 watts and lower be used on PA State Forest Lands where regular pedal bicycles are allowed? There is conflicting information on the internet and the PA DCNR doesn't seem to address this anywhere." It is always appreciated when a person who is unsure of the rules and regulations in the State Forest is willing to ask for clarification prior to their visit. With that being said, the answer to that question is that the Bureau of Forestry does accept the use of Class 1 E-bikes on trails open to mountain bikes provided that they meet all of the following standards;

1. They must have an electric motor less than 750 watts
2. They must have fully functional pedals
3. They have a weight not more than 75 pounds
4. They must have a maximum speed of less than 20 mph
5. They can not have the capability of being self-propelled (i.e. must be pedaled in order to engage the electric motor)

Bureau of State Parks:

The Bureau of State Parks has received requests and questions from individuals regarding the legality of using electric assisted bicycles on Pennsylvania State Park trails already open to bicycling. State Park and Forest regulations do not specifically deny the usage of electric assisted bicycles on trails and roads open to bicycle usage. Therefore, as long as the bicycle meets the below listed Federal definition of a bicycle, park managers and all staff should treat electric assist bicycles as they would regular bicycles.

The key factors are that the electric assist bicycle's specs meet those of the Federal definition of a bicycle:

1. Electric motor less than 750 watt
2. Functional pedals
3. Max speed
4. Does not have the capability of being self-propelled (i.e. must be pedaled in order to engage the electric motor)

E-bikes are bicycles having the capability to be assisted by an electric motor. They are not electric scooters that are able to be completely self-propelled by a motor or to be treated as such.

3.6 National Conference of State Legislatures on State E-bike laws

The National Conference of State Legislatures has a recent primer on e-bike laws (March 2019) at http://www.ncsl.org/research/transportation/state-electric-bicycle-laws-a-legislative-primer.aspx

Of particular note:

- It points out that the federal definitions specify the maximum speed when the bicycle is being propelled by motor power alone, and CPSC clarifies that they may travel faster under a combination of human and motor power.
- It says 13 states (not including PA) have created the three-tiered classification system quoted in Section 3.4, with almost identical defining language and requirements
- There's a nice survey of what's going on state-by-state

Excerpts from the primer:

> This primer deals specifically with low-speed electric bicycles as defined by the Consumer Product Safety Commission. E-bikes are most frequently "pedal-assist" or "muscle-assist," meaning the rider must be pedaling for the electric motor to engage. E-bikes may also come equipped with a throttle that allows the bike to be propelled without pedaling.
>
> According to a 2018 bicycle industry analysis, e-bikes sales increased 83 percent between May of 2017 and May of 2018, and e-bikes made up 10 percent of overall bikes sales in the U.S. for that time period.
>
> When faced with an e-bike bill, legislators and stakeholders by and large first question the safety, speed and allowed areas of operation for an e-bike. As part of a 2015 survey of Americans regarding their opinions about e-bikes, 72 percent of respondents stated their top concern was safety. With respect to speed, the research is mixed and somewhat inconclusive thus far with regards to the typical speed of e-bikes and how much that differs from traditional bicycles.
>
> At the federal level, a 2002 law enacted by Congress, HB 727, amended the Consumer Product Safety Commission definition of e-bikes. The law defined a low-speed electric bicycle as "A two- or three-wheeled vehicle with fully operable pedals and an electric motor of less than 750 watts (1 h.p.), whose maximum speed on a paved level surface, when powered solely by such a motor while ridden by an operator who weighs 170 pounds, is less than 20 mph." The federal law permits e-bikes to be powered by the motor alone (a "throttle-assist" e-bike), or by a combination of motor and human power (a "pedal-assist" e-bike).
>
> Significantly, the federal law only specifies the maximum speed that the e-bike can travel under motor power alone. It does not provide a maximum speed when the bicycle is being propelled by a combination of human and motor power, which is how e-bikes are predominantly ridden. The Consumer Product Safety Commission has clarified that the federal law does allow e-bikes to travel faster than 20 mph when using a combination of human and motor power.
>
> There has been a steady stream of legislative action at statehouses regarding e-bikes since 2015. State legislation has focused on three dynamics:
>
> - Revising older state laws that classify e-bikes as mopeds and scooters and may include burdensome licensure, registration or equipment requirements;
> - Creating three-tier classification systems for e-bikes depending on their speed capabilities; and
> - Refining more recent e-bike laws that could benefit from further clarification and detail.

3.7 American Trails guidance on ADA mobility changes

American Trails distributed (by email) this explanation of 2011 ADA revisions as they apply to mobility devices in January 2011.

ALERT! On March 15, 2011, new Department of Justice rules will allow certain "power-driven mobility devices" to be used on trails by "individuals with mobility disabilities."
If you manage a trail that is open to the public this rule applies to your trail.

Analysis by Janet Zeller, U.S. Forest Service National Accessibility Program Manager

On March 15, 2011 the Department of Justice (DOJ) revised rules go into effect allowing "other power-driven mobility devices" to be used by "individuals with mobility disabilities." *Read the full text of the DOJ rule ...*

This DOJ ruling applies to any place, indoors or outdoors, that is open to the public.

Under the American with Disabilities Act (ADA) Title II this DOJ rule applies to trails on State or local government lands. Also under the ADA Title III it applies to other "public accommodations" that would include trails open to the public on privately or commercially managed lands. Federal agency managed lands are not directly covered under the ADA, however this rule sets legal precedents the Federal agencies must watch. So, the Federal agencies are also reviewing their policies, procedures, and the way in which trails on the land base they manage have been assessed.

What is an "other power-driven mobility device?"

An "other power-driven mobility device" is defined in the rules as: "any mobility device powered by batteries, fuel, or other engines — whether or not designed primarily for use by individuals with mobility disabilities — that is used by individuals with mobility disabilities for the purpose of locomotion, including golf cars, electronic personal assistance mobility devices (EPAMDs), such as the Segway® PT, or any mobility device designed to operate in areas without defined pedestrian routes, but that is not a wheelchair within the meaning of this section. This definition does not apply to Federal wilderness areas; wheelchairs in such areas are defined in section 508(c)(2) of the ADA, 42 U.S.C. 12207(c)(2).

In short an other power-driven mobility device is anything with a motor that can be driven, regardless of size or horsepower, if it is driven by a person who has a mobility related disability.

What is NOT an "other power-driven mobility device?"

Any device that meets the following DOJ definition of a wheelchair is not an other power-driven mobility device and must be allowed to be used anywhere, with no exceptions.

A wheelchair is: a manually-operated or power-driven device designed primarily for use by an individual with a mobility disability for the main purpose of indoor or of both indoor and outdoor locomotion. This definition does not apply to Federal wilderness areas; wheelchairs in such areas are defined in section 508(c)(2) of the ADA, 42 U.S.C. 12207(c)(2).

Despite the DOJ ADA rules, the U.S. Forest Service wheelchair definition, regulations, and policies remain in place and continue to apply to all persons on the U.S. Forest Service managed lands.

Who is to be allowed to use the other power-driven mobility devices?

The DOJ rules say anyone who has a mobility disability. A person using an other power-driven mobility device may be asked to provide a "credible assurance" that the mobility device is required because of the person's disability.

That credible assurance can be showing a valid, State-issued, disability parking placard or card, or other State-issued proof of disability, or if the person doesn't have any of those with them, they may simply say that the other power-driven mobility device is being used for a mobility disability. A person may not be asked if they have a disability or anything about their disability.

Only 8 million people who have mobility limitations use wheelchairs, canes, crutches, etc. Close to 20 million people have a mobility related disability but don't use wheelchairs, canes, and so forth. However, they still have mobility disabilities that limit the distance they can walk due to heart or breathing disorders, amputations, joint or muscle related disabilities, and the list goes on. Keep in mind that 85% of all disabilities aren't obvious.

What do you need to do for your trail to be ready for March 15th when the DOJ rules on other power-driven mobility devices go into effect?

The DOJ rules require an entity open to the public to make reasonable modifications in its policies, practices, or procedures to allow the use of other power-driven mobility devices by individuals with mobility disabilities, UNLESS: that entity can document that it has completed an assessment of the facility, trail, route, or area, before the person requesting use of the device arrived onsite, and the entity found that class of other power-driven mobility device could not be used in that location due to one or more of the following DOJ assessment factors:

DOJ Assessment Factors:

(a) "The type, size, weight, dimensions, and speed of the device;

(b) The volume of pedestrian traffic (which may vary at different times of the day, week, month, or year);

(c) The design and operational characteristics (e.g., whether its service, program, or activity is conducted indoors, its square footage, the density and placement of stationary devices, and the availability of storage for the device, if requested by the user);

(d) Whether legitimate safety requirements can be established to permit the safe operation of the other power-driven mobility device in the specific facility; and

(e) Whether the use of the other power-driven mobility device creates a substantial risk of serious harm to the immediate environment or natural or cultural resources, or poses a conflict with Federal land management laws and regulations."

Those are the only factors a public entity or accommodation is to use in determining whether a particular class of other power-driven mobility device may be allowed in a specific location.

If one of those issues prevents the use of a specific class of other power-driven mobility device, that device may be denied use in the section of trail or area where that is an issue.

Post the information:

The information about the devices that may not be used must be posted where the public can easily access it before going to that location. The posted information must include the various classes of devices that may be used, rules related to that use, and who to contact for more information.

The DOJ rules regarding other power-driven mobility devices, are a portion of the revisions to the ADA Title II and Title III finalized by DOJ on 9/15/2010. Both are available in full on the DOJ ADA website at http://www.ada.gov/regs2010/ADAregs2010.htm.

We will be adding additional information to the American Trails website to help you understand this new rule, so check back often: American Trails Web page on the power-driven mobility devices rule.

More on accessible trails, outdoor recreation, and the Americans with Disabilities Act

We wish to thank Janet Zeller, U.S. Forest Service National Accessibility Program Manager, for providing this information on the new DOJ rule. Janet has generously offered to field questions for the immediate future. She can be reached via email at jzeller@fs.fed.us or by phone (202) 205-9597.

3.8 Allegheny Valley Trails rules

The Allegheny Valley Trails Association did a careful analysis under the 2011 changes to the ADA. They lay out the restrictions clearly and provide the rationale. This is a great example of a carefully-justified ADA restriction, so I'm copying it here in its entirety

At https://www.avta-trails.org/ada-mobility-use-policy.php it says

Mobility Device Use Policy

The U.S. Department of Justice (DOJ) has adopted revisions to Title II and III of the Americans with Disabilities Act (ADA) that take effect March 15, 2011. The definition and regulation to permit the use of mobility devices has been amended. The rule adopts a two-tiered approach to mobility devices, drawing distinctions between wheelchairs and "other power-driven mobility devices" (OPDMD�s).

The DOJ requires that each group which owns a trail(s) make reasonable modifications in its policies, to permit the use of OPDMD's by individuals with mobility disabilities. However, if a group can demonstrate that certain OPDMD's cannot be operated safely on their trails those devices can be prohibited.

Therefore, the Allegheny Valley Trails Association (AVTA) adopts the following policies concerning the use of mobility devices by individuals with mobility impairments. To accommodate mobility disabled persons:

1. Wheelchairs and similar devices built specifically for mobility disabilities are allowed. Individuals with mobility disabilities are permitted to use wheelchairs and manuallypowered mobility aids, such as walkers, crutches, canes, braces, or other similar devices designed for use by individuals with mobility disabilities in any areas open to pedestrian use. The organization recognizes and adheres to the ADA definition of wheelchair listed in the definitions section of this policy.
2. Other Power-Driven Mobility Devices (OPDMD's), not specifically designed for disabilities, may be used provided:
    a. Motors on electric devices are 250 watts or less,
    b. Devices weigh less than 100 lb. (43kg),
    c. Devices are no more than 36" wide,
    d. Devices must be capable of being turned around within the trail tread in a safe manner.
    e. Devices must have the capacity to safely negotiate trail features and obstructions.

    Other Power Driven Mobility Devices (OPDMD's) are not designed specifically for mobility disabled individuals, but may be used by others without disabilities. That difference is recognized by this policy which adheres to the ADA definition as listed in the definitions section of this document. It is also recognized that OPDMD's constitute a large and varied group of vehicles including, but not limited to, golf carts, Segways, cycle cars, electric bikes, electric ride-ons, powered scooters, velomobiles, and trikkes.

    By adopting these policies AVTA is not representing that their properties are safe for use by an OPDMD and it is not assuming any liability. Certain risks are inherent in the use of the properties and all users must exercise reasonable care.

    No internal combustion devices are permitted.

Each trail has been assessed to determine these policies based on the following factors suggested by the DOJ. Requirements for prohibition must be based on actual risks.

i. The type, size, weight, dimensions, and speed of the device;
ii. The facility's volume of pedestrian traffic (which may vary at different times of the day, week, month, or year);

iii. The facility's design and operational characteristics (e.g., whether its service, program, or activity is conducted indoors, its square footage, the density and placement of stationary devices, and the availability of storage for the device, if requested by the user);
iv. Whether legitimate safety requirements can be established to permit the safe operation of the other power-driven mobility device in the specific facility; and
v. Whether the use of the other power-driven mobility device creates a substantial risk of serious harm to the immediate environment or natural or cultural resources, or poses a conflict with Federal land management laws and regulations.

Full text and information of regulations and assessment factors can be found at http://www.ada.gov/regs2010/ADAregs2010.htm/)

Rationale for Above Listed Policies

Preface:
The trail(s) owned and/or operated by AVTA have been designed and constructed for non-motorized uses such as bicycling and walking (unless otherwise specified, i.e. *share-the-road segments*). The main funding sources used in the design and construction also had as a requirement that the trails be for non-motorized use. There is a heavy volume of local, regional, national, and international trail users that have come to expect a safe, relaxed, quiet environment without the concerns related to automobile centric spaces. Trail users range in age from infants to young children, adults and seniors. Walkers use the trail singly and in company with others. Families walk or bicycle together, parents enjoy the out-of-doors pushing baby strollers or pulling trailers, and children and seniors are regularly found in friendly groups. The culture of the trail environment has been established to be a low key, relaxed travel, comfortable environment.

The trail(s) has been built in a rural, natural environment including areas of sensitive natural resources such as wetlands, waterways and unique habitats. Other cultural and historical artifacts are also evident along the corridor. Some segments of trail(s) may enter small town environments that may have other regulations regarding use of OPDMD's.

The AVTA believes that persons with mobility disabilities are welcome the same as any other trail user. The trail(s) have been designed and constructed following ADA specifications allowing many who would not be able to enjoy the pleasures of outdoor recreation a chance to experience what others have found to be an exceptional asset in western Pennsylvania. We also believe that limiting the sound, potential emissions, size, weight, power and speed of trail use devices is necessary to maintain this established and expected environment and to protect the natural and cultural resources found along the trail(s). In order to permit many different users to share the same limited and linear space, the rules can be adjusted, but must be structured to allow users to pass each other safely and interact together in that limited space.

We believe that the policies listed above and the justifications for those policies meet the intent of the ADA regulations by allowing other mobility devices, and at the same time maintaining the existing trail culture and the safety of all visitors.

Assessment Factors:
(i) The type, size, weight, dimensions, and speed of the device;

The DOJ requirements for prohibition include speed as a parameter for regulating OPDMD's. Because speed is impossible to assess from vehicle specifications, the power of the motor has been used as an equivalent, with higher power translating to higher top speed.) Average human power on a bicycle is approximately 125 watts. The trail is non-motorized. Allowing mobility disabled individuals the use of devices equal to a strong person is similar to having tandem bikes sharing the trail. There are potential OPDMD vehicles with motors of 250 watts and above. However the power, and thus speed of those higher than 250 watts, is deemed to be a danger to other trail users.

Bicycles are in the 20 - 40 lb range. Considering the heaviest vehicle now allowed on the trail to be a tandem tricycle pulling a fully loaded trailer, that combination is nearly 90 lbs. The 100 lb limit should thus be applied to all vehicles on the trail.

Much of the trail has been built to 8' specifications. Also the shoulders tend to be soft, and surrounding vegetation encroaches from the edges. With two way traffic, that gives a 4' or less lane width for vehicles to pass. Any device wider than 3' begins to encroach on the opposite lane and becomes a safety hazard. Bicycles easily fit this width requirement. A search of the typical equipment available today indicates most are within that width. In addition, bollards at trail access areas and road crossings have openings of approximately 36" and thus are significant barriers to wider vehicles.

(ii) The facility's volume of pedestrian traffic (which may vary at different times of the day, week, month, or year);

A 2006 Trail Utilization Study of trails in this region determined that an estimated 160,000+ people use the trails in the regional system. Viewing the various access points and parking areas during the summer months shows a high volume of trail users at all times of the day. Use of high speed or heavy/large vehicles would present a danger to this volume of non-motorized users.

(iii) The facility's design and operational characteristics (e.g., whether its service, program, or activity is conducted indoors, its square footage, the density and placement of stationary devices, and the availability of storage for the device, if requested by the user);

This factor refers to indoor facilities and thus is less applicable to a trail. But the design includes stationary bollard placed within the travel lane at road crossings and access areas to prevent unapproved access. Trail users cannot move or adjust these bollards. The original intent and expected operational characteristic of the trail is for non-motorized two way traffic use where users can safely pass each other.

(iv) Whether legitimate safety requirements can be established to permit the safe operation of the other power-driven mobility device in the specific facility;

While safety requirements, such as a speed limit, could be created and posted on the trail, it would be difficult to enforce since the AVTA is a volunteer organization with no enforcement personnel or capabilities. Other physical factors, such as the remote area of some segments of trail and limited sight distances, are also prohibitive in the use of larger, wider or faster devices. Those segments of trail that share the road or use municipal sidewalks or parking areas are governed by the rules and regulations established for such areas.

(v) Whether the use of the other power-driven mobility device creates a substantial risk of serious harm to the immediate environment or natural or cultural resources, or poses a conflict with Federal land management laws and regulations.

The trail(s) is constructed in a natural setting with vegetation and/or waterways directly adjacent. OPDMD's typically have wider wheels and have the power to cause damage such as crushing of vegetation or erosion of soil.

Internal combustion powered devices, gasoline, diesel or propane, are inherently loud, emit unpleasant, possibly noxious fumes and have the possibility of spilling or leaking toxic substances. The noise and fumes do not fit in with the natural qualities of the trail, and present a potential danger to users as well as the adjacent vegetation and wildlife. Those segments of trail that share the road or use municipal sidewalks or parking areas are governed by the rules and regulations established for such areas.

Definitions:

ADA Part 35 (Title II) - § 35.104 Definitions.

Wheelchair means a manually-operated or power-driven device designed primarily for use by an individual with a mobility disability for the main purpose of indoor or of both indoor and outdoor locomotion. This definition does not apply to Federal wilderness areas; wheelchairs in such areas are defined in section 508(c)(2) of the ADA, 42 U.S.C. 12207(c)(2).

Other power-driven mobility device means any mobility device powered by batteries, fuel, or other engines--whether or not designed primarily for use by individuals with mobility disabilities--that is used by individuals with mobility disabilities for the purpose of locomotion, including golf cars, electronic personal assistance mobility devices (EPAMDs), such as the Segway® PT, or any mobility device designed to operate in areas without defined pedestrian routes, but that is not a wheelchair within the meaning of this section. This definition does not apply to Federal wilderness areas; wheelchairs in such areas are defined in section 508(c)(2) of the ADA, 42 U.S.C. 12207(c)(2).

3.9 Butler Freeport Trail rules

The Butler-Freeport Community Trail states their e-bike policy on the "Trail Etiquette" page. Although the trail organizers were discussing pedal assist in terms of "if you aren't pedaling you aren't getting assist", the wording of the rule follows the PA code and does not appear to require pedaling (only "operable pedals" I believe there was a gap in communication when this was put in place.

The ebike policy form the Trail Etiquette page is

> EBike Policy – Use of e-bikes (or electric assist bicycles) on the Butler Freeport Community Trail
> The Butler Freeport Community Trail Council suggests that Buffalo Township authorize the use of electric assist bicycles, commonly known as e-bikes, on the Butler Freeport Community Trail subject to the same rules, regulations, ordinances and laws as apply to bicycles.
> The Trail Council suggests the following policy be enacted:
> A person, aged 16 years and over, may operate an electric assist bicycle (commonly called an "e-bike") on the Butler Freeport Community Trail if such electric assist bicycle meets the definition of a "pedalcycle with electric assist" as set forth in Title 75, Chapter 35 of the Pennsylvania Code (75 Pa Code § 102). Operation of a pedalcycle with electric assist shall be governed by the same rules, regulations, ordinances and laws as apply to the operation of a bicycle (pedalcycle) on the Butler Freeport Community Trail.
> The Pennsylvania Code defines a "pedalcycle with electric assist" as follows: A vehicle weighing not more than 100 pounds with two or three wheels more than 11 inches in diameter, manufactured or assembled with an electric motor system rated at not more than 750 watts and equipped with operable pedals and capable of a speed not more than 20 miles per hour on a level surface when powered by the motor source only. This term does not include a device specifically designed for use by persons with disabilities.
>
> Note: 75 Pa Code §3514 imposes the age restriction.
> Passed by the Buffalo Township Board of Supervisors on March 14, 2018

The justification analysis for ADA is given on a policy page

> **PURSUANT TO 28 C.F.R. §§ 35.130 (b)(7), (h)**
>
> "A public entity shall make reasonable modifications in policies, practices, or procedures when the modifications are necessary to avoid discrimination on the basis of disability, unless the public entity can demonstrate that making the modifications would fundamentally alter the nature of the service, program, or activity." 28 C.F.R. § 35.130(b)(7).
>
> But, "[a] public entity may impose legitimate safety requirements necessary for the safe operation of its services, programs, or activities. However, the public entity must ensure that its safety requirements are based on actual risks, not on mere speculation, stereotypes, or generalizations about individuals with disabilities." 28 C.F.R. § 35.130(h).
>
> **PROHIBITIONS**
> Buffalo Township, along with the Butler Freeport Community Trail Council, has completed an assessment of this trail and has found that fuel-powered vehicles and golf carts, with the exception of staff-driven or emergency vehicles necessary to eliminate safety risks by maintaining the property or providing necessary assistance in an emergency, may not be used in this location due to one or more of the following Department of Justice assessment factors:
>
> 1. (i) The type, size, weight, dimensions, and speed of the device;
> 2. (ii) The facility's volume of pedestrian traffic;
>   - a. Specifically, this trail has a high volume of both pedestrian and bicycle traffic. This policy is necessary to ensure the safety of both
> 3. (iii) The facility's design and operational characteristics;

4. (iv) Whether legitimate safety requirements can be established to permit the safe operation of the other power-driven mobility device in the specific facility;
    - a. Specifically, this multi-use trail permits equestrian use. Combining equestrian use, pedestrian use, and motorized vehicle use creates a legitimate concern for safety and risk of serious harm to other trail users. Allowing fuel-powered vehicles or golf carts to travel freely on the trail would render the trail unsafe for other visitors; and
5. (v) Whether the use of the other power-driven mobility device creates a substantial risk of serious harm to the immediate environment or natural or cultural resources, or poses a conflict with Federal land management laws and regulations.

3.10 GAP trail rules

The GAP web site has two different version of the rules, and their Executive Director sent another. Note that (a) they does not restrict use to people with medical mobility impairments and (b) it says "fully operating pedals" rather than "pedal assist". I'm not sure they fully understood the difference when they wrote it

In email of 7/26/2018, the Executive Director of the Allegheny Trail Alliance said these are the posted rules:

General Rules and Guidelines

- Trail is open from dawn to dusk
- Maximum speed is 15 mph
- By state law, cyclists in PA under the age of 12 must wear helmets (under 16 in MD)
- No vehicles powered by internal combustion are permitted on the trail, except for maintenance and emergency purposes
- Wheelchairs and similar devices built specifically for mobility disabilities are allowed*
- Other power-driven mobility devices, not specifically designed for disabilities, may be used in Pennsylvania, provided:
    - Motors on electric vehicles are 750 watts or less
    - Devices weigh less than 100 lbs.
    - Device are no more than 36" wide
    - Devices have fully operating pedals

*Wheelchairs are considered to be any mobility aid, usable indoors, and designed for and used by individuals with mobility impairments, whether operated manually or by an electric-motor, and not utilized in excess of 15 miles per hour.

Bicycles with an Electric Assist System are considered to be any unicycle, bicycle, tricycle, or quadracycle with an electric motor not exceeding 750 watts of power, a maximum weight of 100 pounds, pedal-assist, and top-speed utilized not in excess of 15 miles per hour, or less if otherwise noted. (This definition is in compliance with the Consumer Product Safety Commission Public Law 107–319, 116 Stat., Act 2776 and the Federal Highway Administration Title 23, United States Code 217.)

We have a multiplicity of owners along 150 miles and clarifying these policies -- and publicizing them -- is important. In Maryland the limits on e-bike wattage is purportedly 500W, for example.

Essentially this is buried in the group permits page at https://gaptrail.org/about-us/group-permits

However the requirement for pedals is omitted from the version of the rule on the trip preparation page at https://gaptrail.org/plan-a-visit/trip-preparations/trail-rules

3.11 CMU emerging campus policy

The CMU Bicycle Advisory Committee recently discussed electric mobility devices on campus. CMU has very wide sidewalks. For at least 50 years, there has been an understanding that bicycles and pedestrians can share these sidewalks. Maintenance vehicles similar to small golf carts also share these sidewalks, as do electric wheelchairs and the occasional mobility scooter. For the most part, the sharing is amicable.

The recent emergence of e-bikes, skateboards, etc led to a discussion about policy. The policy under discussion would allow diverse mobility devices with a restriction that they observe a 5mph campus speed limit. I imagine there will also be a weight limit

3.12 York County Parks Mobility Device Policy

Joe Stafford kindly sent two documents that the York County Parks Department are using to address e-Bikes specifically on the Heritage Rail Trail (now county owned and maintained) The first document is the policy, the second is the permit they issue. Note in particular that they only permit pedal-assist ebikes (Class 1) and they require the operator to carry a permit (presumably so they can verify that the bike fits in the specs).

York County Parks
Mobility Device Policy

In accordance with the US Department of Justice (DOJ), Americans with Disabilities Act (ADA), revised regulations for Titles II and III, the 2010 ADA Standards for Accessible Design of 15 November 2010, the YCP adopts the following policies concerning individuals with mobility impairments.

To accommodate mobility disabled persons;

1. **Wheelchairs and similar devices built specifically for mobility disabilities are allowed.**
2. **Other Power-Driven Mobility Devices OPDMD's, not specifically designed for disabilities may be used, provided;**
    a. **Bicycling and/or horseback riding is permitted in the park**
    b. **Motor is 750 watts or less,**
    c. **Device is no more than 36" wide,**
    d. **Device has fully operating pedals and must be pedaled in order to engage electric motor.**
    e. **Device is operated at a safe speed**
3. **No internal combustion devices.**

The DOJ requires that the group which owns the trail(s) "make reasonable modifications" in its policies, to permit the use of OPDMD's by individuals with mobility disabilities. However, if a group can demonstrate that certain OPDMD's cannot be operated safely on their trails those devices can be prohibited.

Requirements for prohibition must be based on actual risks. Those assessments can include the following:

I. The type, size, weight, dimensions, and speed of the device;
II. The volume of traffic;
III. The facility's design characteristics (width and surface);
IV. Whether legitimate safety requirements can be established to permit the safe operation of OPDMD's; and
V. Whether the use of the OPDMD's creates a substantial risk of serious harm to the immediate environment or natural or cultural resources.

(This is a paraphrase of the assessments included in the original DOJ documents.)

Rationale for the Policies Above

Preface:

The trails within the York County Parks were designed and constructed for specific activities which could include walking, bicycling and horseback riding. Each park has specific regulations outlining its permitted uses.

The trails vary greatly in difficulty and in the volume of visitors. Trail users have come to expect a safe, relaxed, quiet environment without the concerns related to automobile centric spaces.

Trail users range in age from infants to young children, adults and seniors. Park visitors use the trails singly and in company with others. Families walk or bicycle together, parents enjoy the out-of-doors pushing baby strollers or pulling trailers, and children and seniors are regularly found in friendly groups. Many of YCP trails have become a part of the fabric of the local communities.

The culture of the trail environment has been established to be a low key, relaxed travel, comfortable environment.

We believe that allowing persons with mobility disabilities will add to that culture and allow many who would not now be able to enjoy the pleasures of our facilities a chance to experience what others have found to be an exceptional asset in York County, Pennsylvania. We also believe that limiting the sound, potential emissions, size, power and speed of trail use devices is necessary to maintain this established and expected culture. In order to permit many different users to share the same limited space, the rules can be adjusted, but must be structured to allow users to pass each other safely and interact together in that limited space.

We believe that the adjusted regulations above and the justifications for those regulations meet the intent of the ADA regulations by allowing other mobility devices, and at the same time maintaining the existing trail culture and the safety of all visitors.

1. Internal combustion powered devices, gasoline, diesel or propane, are inherently loud and emit unpleasant, possibly noxious fumes. Since the beginning of the trail systems within the YCP, motorized vehicles, especially internal combustion powered, have not been allowed. The noise and fumes do not fit in with the natural qualities of the trails, and present a potential danger to users as well as the adjacent vegetation and wildlife. Internal combustion vehicles have been and will remain prohibited.

2. The ADA regulations define wheelchairs, and similar devices, as devices designed specifically for mobility disabled individuals. These devices are allowed on public trails, and are allowed and welcomed on YCP trails.

Wheelchairs and like vehicles are designed specifically for mobility disabled individuals. Other Power Driven Mobility Devices (OPDMD's) are not designed specifically for mobility disabled individuals, but may be used by others without disabilities. That difference is recognized by this policy.

It is also recognized that OPDMD's constitute a large and varied group of vehicles including, but not limited to, golf carts, Segways, cycle cars, electric bikes, electric ride ons, powered scooters, velomobiles, and trikkes.

Policy item #2 recognizes the difference between the two classes of vehicles and allows the use of wheelchairs. In Policy item #3 OPDMD's are allowed, if they meet specific requirements.

3. OPDMD's are allowed, following the general regulations of the trail which apply to all users, and provided:

A . May be used only in parks where bicycling and horseback riding are permitted. The parks that currently prohibit bicycling and horseback riding are Nixon County Park and P. Joseph Raab County Park. These parks are smaller in size and the trail systems were constructed for walking only. Trail users have come to expect foot traffic only. Additionally the culture of the trails particularly at Nixon Park focuses on nature observation and the environment.

OPDMD users are required to follow the park regulations which close the trails to all activities except foot traffic during wet conditions.

B. Motors are 750 watts or less. *(The DOJ requirements for prohibition include speed as a parameter for regulating OPDMD's. Because speed is impossible to assess from vehicle specifications, the power of the motor has been used as an equivalent, with higher power translating to higher top speed.)*. The trail is non-motorized. Allowing mobility disabled individuals the use of devices equal to a strong person is similar to having tandem bikes sharing the trail. There are potential OPDMD vehicles with motors of 750 watts and above. However the power, and thus speed of those higher than 750 watts, is deemed to be a danger to other trail users.

C. Vehicles are no more than 36" wide. Most of the multi-use park trails are built to 10' or less specifications. However because the shoulders tend to be soft, and surrounding vegetation encroaches from the edges, the effective usable width is less than 8'. With two way traffic, that gives a 4' width for vehicles to pass. Any device wider than 3' begins to encroach on the opposite lane and becomes a safety hazard. Bicycles easily fit this width requirement. A search of the trikes and trailers available proved that they also are within that width. In addition, gates/bollards at trail access areas and road crossings have openings around 36 - 40" and thus are significant barriers to wider vehicles.

D. Vehicles have fully operating pedals and must be pedaled in order to engage electric motor. YCP trails are, and have been since their inception, used by pedal driven devices. It is the nature of the facilities and is what is, and has been, expected by users. Pedal-assist vehicles, where the operator is helped by adding power in proportion to the amount of force applied to the pedals, are vehicles very much like the devices now used on the trail. They are bicycles. Vehicles with operating pedals, such as pedal-assist cycles and trikes, allow mobility disabled individuals to enjoy the benefits of the facility while being identical in size, weight, and maneuverability to existing users. The bicycle culture, which has been established in the many years of trail operations, is continued with the introduction of pedal-assisted vehicles. In addition, given that some sections of YCP trails have long sections through relatively remote landscapes without adjacent road access, the use of vehicles that depend solely on a motor are hazards for those using such vehicles. (Hand powered cycles are considered to have "fully operating pedals.)

York County Department of Parks and Recreation
Administrative Headquarters: 400 Mundis Race Road, York, PA 17406-9721
SPECIAL USE AND ACTIVITIES AGREEMENT

E-BIKES

THIS AGREEMENT made this _____day of _____, _____ by and between the York County Department of Parks and Recreation, referred to LICENSER, and _____, referred to as LICENSEE.

The parties, intending to be legally bound hereby, in consideration of the mutual promises and covenants, herein contained, do mutually agree as follows:

LICENSER authorizes the LICENSEE use of an e-bike on trails within the York County Parks where bicycling is permitted.

LICENSEE certifies their e-bike or Other Power-Driven Mobility Devices (OPDMDs), not specifically designed for disabilities, may be used, provided it is in compliance with the following:

a. Motor is 750 watts or less,
b. Device is no more than 36" wide,
c. Device has fully operating pedals and must be pedaled in order to engage electric motor.
d. Device is operated at a safe speed,
e. Device is not internal combustion.

LICENSEE must provide proper medical certification.

This agreement may be immediately terminated for cause by the LICENSER if the LICENSEE fails to perform or abide by any of the terms and conditions herein.

LICENSEE must have this agreement is their possession when in a York County Park and be able to produce it when requested by a Park Ranger.

_____

LICENSER: Park Director Date

LICENSEE: Name and signature Date

LICENSEE: Address Phone number

This agreement automatically cancels itself December 31st of each calendar year.

4 Examples of public perception and confusion

4.1 Issues raised in 2010 discussions

Here are some excerpts from an extended email discussion on ebikes in 2010 with folks from Southwest PA Commission, Bike Pgh, Friends of the Riverfront, Steel Valley Trail, Allegheny Trail Alliance, and National Park Service. I've picked out the bits that identify issues to consider. Instead of reproducing the email thread intact, I've clustered related topics

4.1.1 Safety

"Safety in the specific case of people without car driving experience. I think the 12-16year-old group is a particular concern, because they can't drive cars yet but want to drive something*, preferably fast -- and they don't have the savvy to make allowances for other trail users" -- MS to Steel Valley and Friends of the Riverfront

"Perceived threat -- not quite the same thing as safety, but if trail users -- especially pedestrians or parents of little kids -- perceive a threat, it will discourage them from using the trail." – MS to Steel Valley and Friends of the Riverfront

4.1.2 Types of equipment

"Pedal assist vs Throttle. Setting aside the enforcement issues, I think the strongest case for allowing any electric vehicle on the trail is for pedal-assist bikes. That is, bikes that provide a little boost at lower speeds, for example to help with hills. The pedal assist ought to cut out around 10mph. This type of bike is becoming popular in the Netherlands, where they are used primarily by aging adults who have cycled all their lives but no longer have the strength/endurance to ride without a little supplemental power. These bikes are ridden responsibly, and the people riding them blend smoothly into the bicycle traffic. The bikes themselves are pretty slick, with the battery incorporated in the frame; we saw a row of them for sale at a bike shop for around $2000. If we can keep people on the trail as their stamina fades, that seems like a Good Thing." – MS to Friends of the Riverfront

""they won't go far". Some people say that we need not be concerned about electric bikes because they have limited range and when the battery runs out they become very heavy sluggish unpowered bicycles. There are two problems with this argument: First, this means that they will mostly be near the trailheads, where we already have the most congestion. Second, battery technology is improving, and hybrid/electric cars are driving this improvement. I foresee that battery technology will improve pretty quickly over the next few years, so both range and speed will increase." -- MS to Friends of the Riverfront

4.1.3 Explanability

"We discussed this at the annual retreat: the volunteer monitors are scared to death to allow, since a "slippery slope" allowing some types versus others falls to them to discern the difference. I think our general attitude is that we want to preserve the non-motorized (quiet, human-powered) experience, but not deny the opportunity to those who need a little extra hp to enjoy it, too." -- Linda Boxx, ATA

"Enforcement -- Right now there's a bright line that a trail monitor or law enforcement officer can use -- does it have a motor? If we permit motors up to some power or pedal-assist only or whatever, it won't be possible to check right there, on the spot, whether the vehicle is permitted or not. (For this reason, I believe that any exceptions, such as ADA-justified use, should include a permit that identifies both the person and the vehicle and is displayed prominently when the vehicle is used)." – MS to Steel Valley and Friends of the Riverfront

4.1.4 Purpose of trails and quality of experience

"Trail design -- I doubt that the trails were designed for 100-lb vehicles going 20mph, but someone who engineered the trails should weigh in" – MS to Steel Vallley and Friends of the Riverfront

"Trails were developed as non-motorized and we need to preserve that option for people who want it. Some defenders of electric vehicles defend them because they're quiet. This misses the point. Quiet or not, they are present." -- MS to Steel Valley and Friends of the Riverfront

"Commitments made to funding organizations. Again, I don't know the details first-hand, but someone should figure out whether we accepted funds to build a nonmotorized trail. If so, there must be some consequences of violating those commitments." – MS to Steel Valley and Friends of the Riverfront

"I am not a lawyer, nor do I play one on TV. But has anyone thought about the liability issues that will come with allowing motorized vehicles on the trails? (this interacts with whether the trails were designed for motorized vehicles)." – MS to Friends of the Riverfront

4.2 Facebook thread on ebike regulations

Social media has frequent discussions of ebikes and the like. It's important to understand how people discuss e-bikes when they're talking among themselves, not being interviewed or in a public meeting or in some other setting where their opinions on the subject are being observed.

These threads typically exhibit

- Misinformation and confusion about what the rules actually are, on the part of retailers as well as trail users
- Well-stated arguments that as people age some need a boost and about working to change rules instead of defying them
- In particular, failure to understand that genuine medical mobility impairments are accommodated under ADA, though each trail may limit the accommodations based on trail conditions
- Objections to the rules based on various sorts of special pleading
- Discussions of how to break the rules, and encouragement of others do to so as well
    - Ignore the rules
    - Stop using your throttle if anyone seems to be watching
    - Get a doctor to fudge a disability note
    - Assume the rangers don't care enough to enforce the rule

The thread in this section is fairly typical (though more polite than many Facebook threads).

Fred Flaharty
June 14 at 4:48 PM · C&O Canal

Hi, I'd be interested in the views and experiences of anyone here that's familiar with riding their ebikes on rail trails. I'm in Maryland and find that the C&O Canal and other state trails prohibit them which I feel is unfair to seniors and/ or those with limitations. I've ridden them but now at 70 I find myself needing that little extra push an E bike affords.

Vannevar Bush and 2 others — 62 Comments

Like

George Farrar We ride our e-bikes everywhere. We rode the GAP/C&O last fall. If you ride reasonably we believe rangers have more important things to worry about.
Like · 1w · 6

Jennifer Barrett That makes sense.
Like · 1w

Fred Flaharty You're very probably right but it just takes one pudding head being irresponsible to start the red flags.
Like · 1w · 1

George Farrar Tell your Congressional Representative that you want their support for e-bikes.
Like · 1w · 2

Fred Flaharty George Farrar got it all written up. Thanks
Like · 1w

Tim Iman George Farrar
You have to contact the superintendent for the C&O Canal. I believe their office is in Williamsport or Hagerstown.

Fred Flaharty Tim Iman thanks, they referred me to main office in Hagerstown. Which was fine. Basically they said best to check and cover your butt.
Like · 1w

Nat Deiderich There is a pudding head no matter the group category ...just experienced a "happy" runner who did not want to follow direction days on a trail because they did not want too! I could not have expressed it to them more politely...ride on!😀Have fun!
Like · 1w

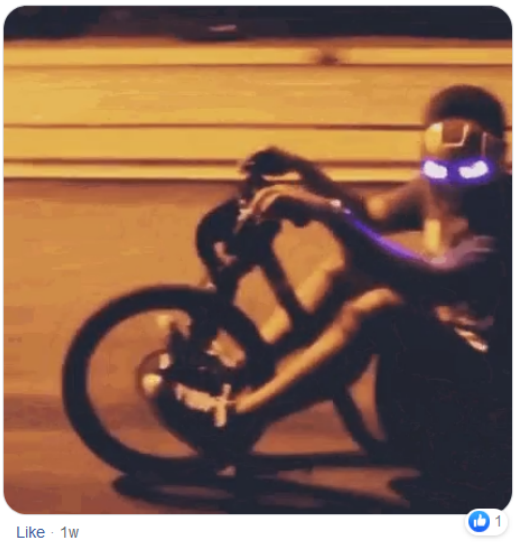
Jake Greenberg George Farrar I rode the GAP two years ago and the signs were not yet updated to say Class 1 Ebikes allowed. Mine was actually a Class 3 but I too observed the 15 mph limit and didn't ride rudely - announce intent to pass, say hi to people getting passed, and giving lots of room. The rules were made in the interest of safety, so as long as you ride responsibly it shouldn't be a problem
Like · 1w · 2

Jennifer Barrett That's too bad they're prohibited - do the sellers say where they're allowed?
Like · 1w

Fred Flaharty Hi Jen, sellers wanna sell so no straight answers there I've found. A park employee trying to be helpful suggested trying to get some sort of written permission or even a permit by calling the main office.😛
Like · 1w · 1

Jennifer Barrett Fred Flaharty I think just going stealth as suggested ^^ makes sense.
Like · 1w · 1

Fred Flaharty



Like · 1w · 1

Doug Riegner Jennifer Barrett stealth'ing it doesn't make any sense. Do you realize the permitting process (like it or not) is a great way for park managers and leaders to understand the needs of park users. Stealthing leads to complaints and then stricter enforcement of parks rules nationally. People complain and the park responds to complaints.
Like · 6d

Jennifer Barrett Okay.
Like · 6d

Fred Flaharty Someone just had a great suggestion..." get a doctors note and you're good to go". Great thought
Like · 1w · 1

Tom Hammond It's a fine line but I biked with a man in his 80s and he explained all the riding he has done and now he needs that little extra to get over the by-passes and to keep up with others! I think it is a great thing if not abused.
Like · 1w · 2

Cenzo Lorenzo Ebikes are not allowed on the C&O and I support that. I would preferred that E bikes be disallowed on all public rail trails. However, I do see that an E bike could not only make trails accessible to older people but possibly to others with disabilities etc. And I absolutely think that EVERYONE should have access to the experience of biking the GAP and C&O. I would think that a simple rule could be developed that says something to the effect of "any senior citizen or physically disabled person may use ebikes on the trail" but I absolutely think that speed limits should been forced because my understanding is that some of these Ebikes can reach speeds of 28mph and in my opinion that is unsafe for the rest of us.
Like · 1w · 5

Fred Flaharty Cenzo Lorenzo yep but the ones reaching over 20 are totally unnecessary and I agree, unless it's on a street. Which is why class 1 and 2 ebike motors shut down automatically at 20. Actually I've had a lot of what I call the 'skinny tire guys' on regular bikes shoot past me going at least 28 or more. There is a limit and all riders should adhere. Heck I doubt I ever break 12 mph😄
Like · 1w · Edited · 1

Tim Iman Cenzo Lorenzo
What is your beef with ebikes on the trail?
Like · 1w · 1

Shelley Renee I have an ebike and ride no faster than some people ride while training... I love it because it takes the pressure off of my knees.. I do not see why they need banned... its a battery, not an engine...

Like · 1w · 3

Doug Riegner Cenzo Lorenzo it's pretty simple if you have an eBike just ask for a permit. They are none too strict about giving them out.

Like · 6d

Nat Deiderich ebikes let them ride!!!....they're riding!

Like · 1w · 1

Greg Kalamasz I have seen them often on the C&O. Are you sure they are not allowed?

Like · 1w

Jim Ritchie As a hiker (and a biker) I see lots of atv's/quads/dirt bikes being ridden on hiking trails, sometimes at reasonable speeds and sometimes at reckless speeds. Some are driven by old folk "who are not strong enough" to hike the trails on their own and some are driven by 12 and 13 year olds whose parents have the brains of a brick. I can see no reason why rail-trails would be any different.

Like · 1w · 2

David Donaldson Get a note from a doctor saying that you use the bike as a mobility device. My stepson is a little person who uses a scooter to help him get around. He used to get hassled until we got the note from the Dr.

Like · 1w · 2

John Ricketts Class 1 ebikes are power assist only, you peddle they help no throttle like class 2&3 which should be a no go, these are mopeds in disguise!

Like · 1w · 1

John Ricketts Class 1 ebikes are power assist only if you paddle they help no pedal no help. Class 2 and 3 ebikes have throttles and our mopeds in disguise, these should be outlawed on any trail.

Like · 1w · 1

Fred Flaharty John Ricketts Gotta disagree John. I can use the class 2 for sure. I need to be able to get back if I have problems peddling.... usually not but just in case🤓. There's loads of hot shot skinny tire guys blowing past me speeding their nuts off.

Like · 1w

Tim Iman Can someone, anyone post a link that says ebikes are mot permitted on the canal trail?

Like · 1w

Fred Flaharty Tim Iman interesting, just found this. Scroll down to ebike
https://www.bikelaw.com/2019/04/maryland-bike-laws/

BIKELAW.COM
Maryland Bike Laws | Bike Law

Like · 1w · 1

Fred Flaharty Tim Iman dern....
https://en.m.wikipedia.org/wiki/Electric_bicycle_laws...

EN.WIKIPEDIA.ORG
Electric bicycle laws - Wikipedia

Mary Shaw Try searching the C&O web pages instead of random other places like wikipedia

Like · 1w · 1

Fred Flaharty Tim Iman here's the new bill. Not sure it's approved though, and the canal may technically not allowbthem
http://mgaleg.maryland.gov/2019RS/fnotes/bil_0009/hb0939.pdf

Like · 1w · Edited

Mary Shaw From the C&O web page on hiking and biking on the towpath at https://www.nps.gov/choh/planyourvisit/hikingandbiking.htm

B"icycle electric assist features cannot be used while on the towpath; they are defined by the National Park Service as motor vehicles and therefore are not allowed on trails".

NPS.GOV
Hiking and Biking - Chesapeake & Ohio Canal National Historical Park (U.S....

Like · Remove Preview · 1w · 2

Fred Flaharty Mary Shaw thanks Mary. It says that the 'assist' may not be used. So I guess if you cut it off when approached you're fine..😎

Like · 1w

Mary Shaw Why is so much of this thread about how to cheat on the rules, which were presumably written with full consideration to the conditions and objectives of the national park as well as to the convenience of the park visitors?

Like · 1w · 2

Tim Iman It says you cannot use it. Nothing about not having it mounted on your bike. Yea, just switch it off when approached. Problem solved

Like · 1w · 1

Fred Flaharty Mary Shaw....The 'rules' are out of date and discriminate against those individuals needing the assist to enjoy the trails. So they were not written with that in mind and with a general ignorance of of the issue... originally.

Like · 1w · Edited · 2

Mary Shaw Fred Flaharty The 'rules' do not discriminate against trail users with genuine medical mobility impairments. Under ADA, trails make accommodations and allow the use of certain electrical mobility assist devices. Under ADA, each trail can determine which mobility assist devices are consistent with the physical characteristics of the trail and other considerations.

Like · 1w · 1

Fred Flaharty That's makes it totally inconsistent at best on state and federal levels. If all bikes, including ebikes were just required to follow the same rules of the road there'd be no need to differentiate anywhere on trails. Common sense solutions as they say.

Like · 6d

Denny Cleary I got one for The Wife. She rides more now and tells me she loves it about every 10 minutes. I am nearly 74 and can see the day when an ebike would make sense for me, but not yet. I test rode one when we were shopping for hers. It is very tempting. I think many people may not understand exactly what the assist does.

Like · 1w · 4

Anthony Boerio There are two issue: noise and speed. Pretty sure noise is only an issue with the Class 3 eBikes. As for speed, since they all top out at 20, and nearly every R2T trail has a 15 mph limit, I guess the fear is too many will be speeding along at 20 ruining it for everyone. That said, from all that I have read, Class 1's should be permitted on our R2T trails.

https://www.bosch-ebike.com/.../three-class-ebike-system/

BOSCH-EBIKE.COM

Three-Class eBike System

Like · 1w

Doug Riegner Simple process to contact I have a very simple process and are friendly about people whom contact them for request to use the bikes on the canal towpath.

Like · 1w · 1

Anthony Boerio The Montour Trail permits Class 1 eBikes as long as you do not exceed the 15mph trail speed limit.....

https://montourtrail.org/plan.../mobility-impaired-visitors/

Pete Smakula Laws, ideas, and innuendo are all over the place. National Parks have their own rules that trump anything else. You can ride your motorized mobility device in the park IF you have their permit, AND you are handicapped. Other state and local park districts have their own rules, and most of them are old and apply to mopeds not ebikes. In my area the park is not enforcing and rules against ebikes, so behave yourself and don't give them reason to change. Same goes with observing that 15 mph when it's posted.

Like · 1w

Pete Smakula Laws, ideas, and innuendo are all over the place. National Parks have their own rules that trump anything else. You can ride your motorized mobility device in the park IF you have their permit, AND you are handicapped. Other state and local park districts have their own rules, and most of them are old and apply to mopeds not ebikes. In my area the park is not enforcing and rules against ebikes, so behave yourself and don't give them reason to change. Same goes with observing that 15 mph when it's posted.

Like · 1w · 1

Ivan Gorodess If you dont use the electric feature on the trail are they ok? As long as someone's not zooming around i bet its ok

Like · 1w

Jake Greenberg Keep checking the rules, many trails are updating rules to allow Class 1 Ebikes

Like · 1w

Philip J Bagley Here's my take. If I understand ebike classification correctly I say Class1 (pedal assist, limited speed) should be open to anyone to use anywhere. Class 2 (throttle restricted speed) limit their use to only those if because of handicap or age can't pedal. Class 3 (Pedal assist with speeds reaching nearly 30 mph) should be banned from use on Trails. There's already to many 'go fast' boys dressed in their 'kit' zipping along well above 15 mph whether theres others present or not and never announcing themselves coming from behind. For those riders here's hoping you crash your bike and have to carry it out! This is something that only promises to get worst as they 'pave' the C&O Towpath. Your already seeing people bragging about the times they're posting getting from point A to B....As for hikers, horseback riders and others its seems there's way to many 'cyclist' who feel there biking needs should trump those of other users of the Towpath.

Like · 1w · Edited

Mary Shaw People bragging about their times sets an example that this is good behavior and encourages others to do likewise. I wish the moderators of all trail groups would actively discourage these discussions -- for example, by adding that to the description and when it comes up anyway making a comment about these discussions being off topic and closing further comments.

Like · 1w

Dave Brillhart Philip J Bagley Pave C&O? Really? That would suck.

Like · 6d

Philip J Bagley Dave Brillhart I'm being a bit facetious. They're not paving it (though some folks have wondered if the section between Brunswick and Harper's Ferry isn't asphalt, its packed so tight). The plan calls for a crush stone base much like the GAP for most of the C&O Towpath. I'm not a fan. Yes, fix the really reoccurring bad spots but I wish they'd leave the rest as is with minimum maintenance. Let the Towpath keep its own unique personality and the challenges it provides.

Like · 6d · 1

Dave Brillhart Class 1 eBikes: 20mph limit, totally silent, no throttle, must pedal. No practical reason not to allow those. I've never had an eBike pass me on my steel single speed. eBike riders are generally older or otherwise restricted people just trying to enjoy a sport they otherwise could not, going at safe speeds. Those who are against these slow class 1 eBikes are mostly just envious of the "assist" (not fair lol). The only remotely negative argument is they weigh maybe 20 lbs more and therefore can cause slightly deeper ruts in soft mud. No more than a hefty dude on a bike packing bike.

Like · 6d · 1

Fred Flaharty Dave, the class 2 allows using the throttle to push off from a standstill. It still cuts assist at 20 too.

Like · 6d · 1

Dave Brillhart Fred Flaharty ok cool, yeah that should be fine too

Like · 6d

Mary Ann Latzgo Padglick I have seen e-bikes rejuvenate the riding of an 80 year old founder of a bicycle club that is nearly 50 years old! He thought he could no longer go on club rides. His smile says it all.

I think the Stravites oppose ebikes because they can't stand to see a bike passing them. The hammer-heads on the trails are far more dangerous than ebikes!

2

Dave Brillhart Mary Ann Latzgo Padglick totally agree, except for the idea that eBike riders are taking away Strava honors 🙂 I'm just not seeing that happen. And it propagates the myth that eBike riders are speed demons

Like · 6d

Mary Shaw Those club rides are probably on roads, so more power to him!

Like · 6d

Mary Shaw Most trails have speed LIMITS of 15mph. That's not sustained speeds of 15mph. This limits the relative speeds of bikers and walkers. Adding a bunch of heavier bikes that can easily go 30% faster makes the trails less congenial to the walkers and slo… See More

Like · 6d · 1

Dave Brillhart Mary Shaw just not seeing this happen. The bikes are capped at 20mph. People aren't riding them at 20mph. I pass eBikes all the time. Just a myth for the most part.

1

4.3 Pushback from ebikers on notice of rules

Here's another discussion thread, this one from a MeetUp group.

In April 2019, a cycling Meetup group scheduled an event: "Pump House to McKeesport - Calling all Ebike owners". It proposed a trip on Steel Valley Trail, "Ok Ebike owners, the rest of us want to know how your ebikes assist works on the bridge ramps. Let's bike over to the Marina in McKeesport, eat some snacks then head back to the Pump house." According to the Meetup page, 15 people went as a group. The thread is at https://www.meetup.com/Western-Pa-Rails-to-Trails-Bicyclers/events/260018218/comments/500182808/?read=1&_xtd=gatlbWFpbF9jbGlja9oAJGFjNmY3NDVhLTc1N2MtNDg0YS04ZDM0LTU0MGUxNjRmNzdjNg&_af=event&_af_eid=260018218&itemTypeToken=COMMENT

This is the part of the discussion relevant to the use of e-bikes on the trail. Considerable discussion about who's coming, what type of bikes they use, etc is omitted. "Roy W" is a board member of the Steel Valley Trail, where the ride is scheduled.

Note the references to Class1 as if it were part of the PA regulations, errors about maximum speed, denial of the ADA provisions that allow trails to define reasonable accommodations. Note the back-and-forth between one member who would like to observe the rules and another who wants to ignore them because he doesn't like them. Note the special pleadings "I'm being discriminated against, and I'm a taxpayer"

> Roy W. Just so you are aware. The Steel Valley Trail is part of the Great Allegheny Passage from Pittsburgh to DC. The rules for the trail are:
> No vehicles powered by internal combustion are permitted on the trail, except for maintenance and emergency purposes
> Wheelchairs and similar devices built specifically for mobility disabilities are allowed
> Other power-driven mobility devices, not specifically designed for disabilities, may be used in Pennsylvania, provided:
> Motors on electric vehicles are 250 watts or less
> Devices weigh less than 100 lbs.
> Device are no more than 36″ wide
> Devices have fully operating pedals
>
> Karen D. Roy in 2012 PA updated bicycle classification to list Class 1 pedal assist bikes as a bicycle. Subject to all laws and rights as a bicycle with Manuel driven or no geared bicycles.
>
> Karen D. Pedal assist must not engage until rider is pedaling. Speed locked at 20 mph. If rider goes faster Motor is disengaged. Motor not to exceed 750 watts. The PA forestry states weight to be under 62lbs. Some trails under 100lbs. Hopefully responsible pedal assist owners will continue to provide updated information.
>
> Lenny S. Sorry Roy, but you're just plain wrong!!As long as the "Pedal assist electric" bikes can't go faster than 25mph,(E-motor shuts off if you pedal faster than 25),they are definitely legal on the trails. I checked out the legality before I bought my E- bike by talking with a couple of attorneys. Motorized gas bikes are a different story.
>
> Roy W.Lenny
> Legal is one issue, but the trail is legally allowed to put further constraints on. We did. See rules below or at https://steelvalleytrail.org/trail-rules/
>
> Karen D. Roy do you know when that policy was written. Was it prior to 2012? Does your section accept state or federal funds? I can't find anything in the legislation to support individual sections discriminating against the law. Class 1 pedal assist are bicycles under the State bicycle law. Please note this is a friendly inquiry. I'm not looking for an argument. I think the more dialogue we do helps to make the law clear for everyone. Thanks Roy.

Mike K. I copied the following from the Great Allegheny Passage website: please see the 8th comment that addresses this issue.

TRAIL COURTESY AND RULES

Trail is open dawn to dusk.
Keep to the right. Pass on the left.
Give an audible signal when passing other trail users.
By state law, cyclists under the age of 12 must wear helmets.
Maximum speed is 15 mph.
Stay on the trail and please respect private property.
No vehicles powered by internal combustion.
To accommodate disabled persons, electric wheelchairs and other electric mobility devices may be used, provided: Motors on electric vehicles are 750 watts or less; Vehicles weigh less than 100 lbs.; Vehicles are no more than 36" wide.
No fires or camping, except in designated areas.
Consumption of alcohol is prohibited.
Leash and control your pet; please remove pet waste.
Horseback riding is permitted in designated areas only.
For emergencies, call 911.

Have a safe and enjoyable trip!

Mike K. Since the Steel Valley Trail website does says 250 maximum watts and the GAP website says 750 maximum watts, one of these websites needs to be updated.

The Allegheny Trail Alliance (ATA) is a coalition of seven trail organizations in southwestern Pennsylvania and western Maryland that is charged with promoting and enhancing the Great Allegheny Passage.

Since the GAP is a World wide popular bicycle trail and e bikes are becoming more and more popular as bicyclers age, all 7 trail organizations need to be on the same page regarding e bikes.

Karen D. Mike I emailed them. Their statement reads in Pennsylvania. So they may not be aware of the 750 watt. Thanks for What I g.

Karen D. Mike the GAP site is correct. I went through the same thing with the Pine Creek trail. I asked a Facebook site where you could rent an ebike. The response was no no no ebikes. I contacted the Forestry division got the PA law and posted it. The people pitching a fir weren't aware of the change. A noted photographer from there was delighted to learn of the change. Within 2weeks of the posting she and her husband had ebikes. In their 70's with health issue they were back out riding their trail!

Roy W. I believe the Class I classification of e-bikes is to provide clarification of there use on roadways.
Most of the trails in the area were developed with state and federal funds for "non-motorized" use. The use of powered mobility devices was an exception granted under the American Disabilities Act (ADA) "to accommodate disabled persons". Thus those 70 year olds or others with "medical needs" are allowed to use motorized bikes on the trails.

Carol Roy, so if one is over 70, the Ebike is non-issue? (According to what you wrote above).

Roy W. Re The difference between GAP rules and the Steel Valley Trail rules.
The maintenance organization for each of the 7 trails is allowed to specify their own rules. The Steel Valley Trail, because it is an urban trail with higher density usage then much of the GAP, has determined that for the safety of trail users to impose more stringent rules.

Karen D. Hi Mike thank you for posting the ride. But as you can see from Roy they are allowed to make their own restrictions. Since I have a 350 watt motor I can't ride with you. I disagree with SVT using safety as the issue. Whether it's a 250 or 750 the speed is locked out. I sent an email to SVT their website reports the 250 as per Pennsylvania that's incorrect. They need to make it clear it's their restriction.
Also to the GAP they are marketing this as a continuous ride obviously not for everyone. I will also contact the State Attorney. At this time there is a large group of people riding legal ebikes being discriminated against by that section of the trail. We are tax payers just like those riding the other legal bicycles. I want to know why they did such a great job defining ebikes then gave someone the power to ban us. Have a great ride. Thank you for supporting those of us who ride an ebike.

Mike K. Ride with us Karen, we will all respect and follow the 15 mph speed limit which both the Steel Valley Trail and GAP websites state.

Lenny S. Hi Karen.....My E-bike is 396 watts and motor shuts off if I go faster than approximately 20mph.I'm riding my E-bike on the SVT April 6th,(and many more times after), and nobody will stop you from riding either.I hope you reconsider and join us on our upcoming ride.

Karen D. Thanks Lenny but it's the principle of the issue. There has been such a stigma with ebikes and just when you think things are getting settled you discover they aren't. If that section has the right to discriminate then they should not receive any state or federal funding. And the GAP and the Allegheny alliance need to let people know that that section is off limits if you are between 350 and 750 watts. Also all bike shops need to alert customers to that part of the trail. And SVT needs to rewrite the part that states 250 Pennsylvania. It's SVT's rule and they need to take the responsibility for the impact they are making on the tourism of the GAP.

Mike K. Also, it is stated on both the Steel Valley Trail and GAP websites the speed limit is 15 MPH

Mike K. I think this is a non issue as long as we all follow the speed limit of 15

Mike K. Roy, I did update this Meetup message stating the speed limit on the GAP is 15 mph. Hope that puts this discussion to a rest and everyone is at peace.

Mike K. As stated in my first sentence in this Meetup description I am curious on how the e bikes do on bridge ramps. Being that the Steel Valley Trail is paved and as Roy stated has higher density usage I don't think the e bikers would use an assist other than going up the bridge ramps.

Carol Thank you for all of this new information that must be considered. I can understand the need for a speed limit since the trails are used by pedestrians and cyclists, but to prohibit ebikes on any trail seems odd and more odd that bike shops would be unaware. We are trying to get America healthy and thin again, and ebikes are the perfect incentive. Karen and Mike, I appreciate your insight and comments. Roy, I appreciate the hard work you've done to help make cycling on our streets safer. Perhaps we can put our heads together to resolve this issue.

Karen D. Carol people may think because a pedal assist kicks off at 20mph we ride that fast. I'm well aware of the speed limits and I abide by them. I have seen regular bicyclists not dogging on the trail. I have never ridden fast. You wreck the same! I to appreciate trail volunteers. What bike did you order? I tried to find the Trek dual sport. Looking forward to meeting you.

Mike K. After all that has been said, let peace rule. Our group is 90% middle aged and up, our group is a 10-12 mph group, none of us are interested in going 15 mph or more. Personally I don't get the wattage issue if the speed limit is 15 mph on the whole trail.
Enforcement is another issue. who is going to enforce the e bike watt issue on the SVT? Will they have volunteers stationed at various places to stop e bikers to inspect their bikes? Same can be said about enforcing the 15 mph. I think we can all agree that the vast majority of people, with very few exceptions, obey the rules of the trail.

Karen D. Well said Mike. This is PA law. Ebike is a bicycle if: Motor doesn't engage until Peddling. Motor stops if speed exceeds 20mph. No greater wattage than 750. Permitted wherever bicycles ride. If your bike is legal in PA you won't have difficulty in other states. E bikes have nothing to do with ADA or age since 2012 when they were given bicycle classification. I'm thrilled for those who don't need assist. Delighted those who do can ride! You get 65 % workout vs the 100% non assist get. Beats the sofa!

Carol I believe Roy is citing a rule from SVT that doesn't apply to the kind of bikes Lenny, Doug and I have. I don't know for sure about Karen's, but I ran this by our Squirrel Hill Bike and Ped Committee chair and he agreed: our bikes are in compliance. Let's ride the trails!

Gilbert P Just on a note of curiosity, what data was used in the determination that the Steel Valley trail has a high density trail usage?

Mike K. I have no disagreement that the Steel Valley trail has a high density usage since it is close to Pittsburgh and paved all the way.

Lenny S. Good for you Karen!! Don't let Roy,(and others anal about E-bikes on trails) discourage you from cycling. Otherwise, they'll win and you'll lose .I've seen so many E-bikes on the SVT last year and there will be even more on the SVT in the future. Bring your E-bike and join us on our ride

Karen D. Lenny I had an email from SVT and they are now in compliance with the entire GAP. their rule page will be updated. So I'm legal..lol. I think the trail volunteers just want the best for the trail. And hopefully the dislike of ebikes will decrease as responsible ebike owners show we are responsible trail riders. Looking forward to meeting you.

Lenny S. Hi Karen.....Glad to know E-bikes on SVT, along with all the other trails are legal.E-bikes will be even more popular in the near future.I remember 50-55 years ago,3 gear bikes were just coming out and people saying it's cheating.A few years later 10 gear bikes became popular.Today, mostly everyone has a bike with 27 gears.Within the next decade most people will be purchasing E-bikes,just like 50 years ago when everyone thought nothing of purchasing gear bikes.Glad you're joining us on the ride.Looking forward to meet you also.

4.4 Disallowed vehicle on trail

Last year we encountered this electric moped rider on the Steel Valley Trail. She was operating under throttle control – those cute decorative “operable pedals” are not good for much.

We had a civil discussion in which a board member of the trail who was with me explained that the vehicle was not allowed on the trail. She cited ADA section 35.137 – the bit about requiring accommodation (Section 3.1) However, she was completely unwilling to recognize the immediately-following bit about the trail defining “the class of other power-driven mobility devices cannot be operated in accordance with legitimate safety requirements”, which the trail had, and which prohibited this.