Dear Bridger-Teton National Forest,

As a passionate advocate for the responsible use of e-Mountain Bikes (e-MTB), I am writing this letter in support of the proposed initiative to expand recreational opportunities for e-Bikes on select trails within the Bridger-Teton National Forest. This letter specifically addresses Class 1 e-MTBs - a niche subset of e-Bikes that operate ***without*** throttles, which rely solely on pedal-assist technology for operation and propulsion. I would like to clarify from the outset that my advocacy does not extend to any e-Bike classes other than Class 1. While my advocacy extends to Class 1, I would like to explicitly state that I am not in support of "hand built to order" products that meet the nominal requirements for this classification, as companies putting them together deviate from the industry standards of thoughtful purpose and design. With respect to mountain biking specifically, no reputable and respectable mountain bike brand is known to be developing, or even considering dedicated Class 2 or Class 3 e-MTBs. While there have been instances of e-MTBs capable of 45km/h (equivalent to 28mp/h) in the North American markets, those offerings have long been discontinued to align with industry's vision to preserve this emerging conveyance type in Class 1. Needless to say that no such products are currently produced or offered, even by those brands who have been in the past. The e-MTB industry in the United States today consistently prioritizes pedal-driven innovation, ensuring that e-MTBs remain firmly aligned with the ethos of effort and engagement that defines this sport.

Before delving in, I want to make the purpose of this letter abundantly clear to everyone, including people who might be reading it in the Public Comment / Objection Reading Room. This is not a manifesto designed to provoke or polarize. Rather, it's an invitation to inform and engage, particularly with those who might still be skeptical of e-Mountain Bikes, and those who oppose this proposition. If you count yourself among them, this letter is for you. It's a culmination of years of study and reflection, addressing every concern and misconception I've encountered along the way. It is, admittedly, not a brief read. There are **85** pages of detailed discussion in this letter. While this length might seem daunting at first glance, it reflects the complexity of the topic and the seriousness with which I have approached it. Reading it requires time, focus, and willingness to engage with ideas that may challenge your perspectives.

Many of you have expressed opinions about e-Bikes, dismissing them as tools for the lazy - shortcuts for those unwilling to do the "hard work". You have argued that the outdoors should be earned through pure effort, where the journey itself holds meaning because of the challenge it demands. I hear you. I respect the value you place on perseverance, the integrity of the trail experience, and the principle of "no easy way out." So, I extend this challenge to you: approach this letter with the same dedication you bring to a grueling ascent on a trail. At its conclusion, you won't find a trophy or medal, but something far more profound: a perspective elevated by great understanding. Just as a first time hiker standing at the summit of the Grand Teton sees the valley below in ways they never could have from the base, this letter offers a chance to rise above preconceptions and see the contours of this issue with much greater clarity. The climb through these pages may test your patience, but the view from the top will reward you for your perseverance. Don't skim. Don't skip sections. Don't just jump to the conclusion. Remember, that's the cheaters' way. Commit to reading it

fully, word by word, and reflect on the arguments within. If you truly believe in the rewards of hard work, let this letter be your climb. Engage with it fully, and prove - both to yourself and to the principles you hold dear - that you hold the same standard of hard work in debate as you do on the trails. You say e-Bike riders are taking the easy way out. It is your turn to show that you won't.

To make sense of the situation we find ourselves in today, we must first explore how it all started and where the trajectory diverged. With bicycle-style e-Bikes having been met with acceptance around the globe, people openly embraced this innovative form of transportation. In many regions, where cycling has long been a part of the culture, e-Bikes have naturally found a place in society. This deeply rooted bicycling culture has created a smooth path for the integration of e-Bikes, with citizens appreciating their ability to extend the practical limits of the tools they already trusted. In contrast to the warm reception e-Bikes have received overseas, their introduction to the United States market has been met with notable resistance. Although the rapid advancements in e-Bike technology and the enthusiasm surrounding their benefits sparked excitement among early adopters, the industry underestimated the regulatory hurdles that were laying ahead. They were severely unprepared for the unique regulatory and environmental challenges that would slow their adoption, particularly on public lands, which the American people care meticulously for. One of the most significant challenges in the United States was the lack of coordinated advocacy and education at the federal level. Without clear guidance from the industry, stakeholders and conservation groups struggled to understand what bicycle-style e-Bikes were. People thought they were lightweight motorcycles of some sort. In the American context, this conflation created a world of confusion for the general public and policymakers, many of whom use the term "e-Bike" as a catch-all descriptor for the entire range of electric conveyances. A major source of confusion also stemmed from the terminology used to describe the core technology of e-Bikes - the "motor". The mere presence of the term "motor" evoked strong associations with high-powered, fully motorized vehicles. In the absence of firsthand knowledge, people defaulted to preconceived notions about what it meant for a vehicle to be "motorized", reinforcing them solely with outdated understanding of vehicle classifications which are very ill-suited for assessing the nuances of an emerging climate of conveyances. Unlike in Europe, where cycling infrastructure and regulations are well-established, the lack of a unified approach in the United States regulatory landscape left policymakers grappling with technology that was misunderstood, and with terms that were misinterpreted, and later, misapplied.

This lack of understanding fueled regulatory debates and community conflicts, as many saw e-Bikes as an intrusive force rather than an eco-friendly tool for recreation. At the heart of this debate were concerns that e-Bikes would disrupt natural ecosystems. Critics feared that their use would lead to increased erosion in delicate environments and cause damage to the trails. Their worries, while not entirely unfounded at the time, were based on a misunderstanding of how bicycle-style e-Bikes operate compared to more powerful motorized vehicles. In its rush to promote the benefits of e-Bikes, the general e-Bike industry failed to provide sufficient evidence to counter these concerns. This lack of clarity allowed opposition to grow, fueled by fear of the unknown and assumptions that e-Bikes would disturb the natural experience of hikers, cyclists, and other outdoor enthusiasts. This fear was also exacerbated by the rapid growth of the broader e-Bike market, where a variety of electric

contraptions flooded the streets. In the eyes of the many, the lack of precise distinction between these conveyances was concerning. Recognizing this challenge, PeopleForBikes, in partnership with Bicycle Product Suppliers Association, initiated a national campaign to pass comprehensive e-Bike legislation, striving to create stability in the marketplace by providing a clear framework for distinguishing between different types of bicycle-style e-Bikes based on their power output and speed limits. Their effort successfully passed in late 2015, and we know it today as the 3-tier classification system. Unfortunately, this system was implemented through a mix of state-level legislation rather than being a single federal law - a development that would have greatly simplified the regulatory landscape. It remains unclear whether the United States Forest Service was aware of those initiatives during the formalization of its own regulations, or if it chose to disregard them under pressure from groups who viewed all e-Bikes as inherently motorized. And if they were aware, has there been any proactive effort from either side to collaborate and co-develop it? Acknowledging the preliminary classification efforts from their inception could have paved a much clearer path forward, helping balance initial environmental concerns with the realities and benefits of bicycle-style e-Bikes. Nonetheless, environmental and conservation groups, overly concerned about protecting public lands, kept applying pressure on policymakers to restrict e-Bike use on non-motorized trails. The tipping point came in March 2016 when the United States Forest Service reinforced its stance that all e-Bikes, regardless of operational characteristics or power output, should be categorized as motorized vehicles. This blanket categorization effectively banned all bicycle-style e-Bikes from non-motorized trails, lumping them together with ATVs, dirt bikes, and other high power machines. This decision was driven more by a lack of understanding and precautionary measures than by any substantial evidence proving that e-Bikes caused harm to the environment. By not addressing in a timely manner the specific concerns of land managers, conservationists, and outdoor enthusiasts, the general e-Bike industry missed a crucial opportunity to shape the narrative from the beginning. Instead, they allowed prejudice to take root in people's minds, making it to this day extremely difficult to challenge.

Around the same time that Forestry's regulations concerning e-Bikes were formalized and prepared to be enshrined into the law, e-Mountain Bikes - a niche subset of bicycle-style e-Bikes engineered specifically for mountain biking - began to emerge. Pioneered by respectable and reputable mountain bike brands - a community that's deeply rooted in a passion for pedal-centric exploration - the market potential for e-MTBs seemed incredibly promising at that time. Engineers and outdoor enthusiasts alike were super excited about fusing traditional mountain biking with pedal-assist technology, striving to offer enhanced capabilities while maintaining the core principles of physical engagement, and preserving the thrill of off-road cycling. Unlike the e-Bikes that are commonly seen on the streets, e-MTBs were never designed with throttle operation in mind. From the very beginning e-MTBs were meant to be pedal-centric, using nothing but human effort as the primary driving force. However, because of Forestry's regulations that broadly categorized all e-Bikes as motorized vehicles, e-MTBs were also swept up. The timing could not have been worse. It wasn't the fault of e-MTBs that led towards the ban being instituted, however they are the ones who suffered from this ban the most. Once the policy was in place it became much harder for e-MTB enthusiasts and advocates to undo the damage, as it had already fostered a perception in the minds of many that everything

labeled as “e-Bike" was dangerous and disruptive, and that it did not belong to the traditional outdoors. Given that the market for e-MTBs was still in its infancy with minimal market penetration, these new regulations inadvertently stifled the growth of a promising industry during its critical period of development. This shortsighted perspective not only deprived outdoor enthusiasts of a transformative new way to engage with nature, it unjustly continues to displace these beautiful conveyances from the natural habitat they were designed to conquer.

Modern-day e-MTBs are light-years beyond what they were just 10 years ago. Their evolution has been quite remarkable. Starting with advancements in battery technology that have enabled manufacturers to produce lighter and more energy-dense batteries, and continuing with improved mid-drive system integration that has allowed for more compact systems to be developed. Rather than reinventing the wheel, mountain bike manufacturers are building e-MTBs by leveraging the proven success of existing mountain bike frame designs and components. The key distinction in the construction of an e-MTB is the redesigned lower section of the frame to accommodate a dedicated drive system, and a battery pack for powering it. All e-MTB frames today are designed with fully integrated or semi-integrated batteries, resulting in a much cleaner and streamlined appearance, one that closely resembles a classic mountain bike. Same is true for the drive system integration. Engineers work to seamlessly integrate them into the bottom bracket area and have it sit snugly within the frame without protruding excessively. This integration not only enhances the overall aesthetics but also improves the balance and handling of the bike by keeping the weight distribution centered. Despite these structural adaptations, the overall form and feel of e-MTBs remain remarkably similar to their non-electric counterparts.

How do e-MTBs work? Simple! They operate on a similar principle to traditional mountain bikes, but with one key enhancement: they are equipped with advanced Pedal-Assist Mid-Drive Motors. These compact, electrically powered mechanical components are cleverly wrapped around the bottom bracket, seamlessly integrating with the bike’s drivetrain, with crank arms directly mounted onto them, one on each side. Mid-Drive units are built around pedal-assist functionality, which means that they can only be engaged when the rider is actively pedaling, with the pedal-assist serving to augment, rather than replace human effort. Pedaling your e-MTB is not optional; pedaling your e-MTB is mandatory. When torque (rider’s initial pedaling effort) is detected by the mid-drive system, it activates an electric circuit that draws energy from the battery. This process converts the potential energy stored inside the battery, into kinetic energy, and that's how additional rotational force is obtained. Mid-drive systems are designed such that when you press on the pedals, they amplify the amount of power that you are pressing with, thus assisting the rider's pedaling exclusively for the duration of that effort. The amount of boost that the pedal-assist is capable of is always proportional to the torque provided by the rider. In other words, e-MTBs boost your pedal strokes - they are not replacing pedaling. They ride, handle and act like regular mountain bikes with little to no difference. Contrary to popular opinion, e-MTBs are not much faster than mountain bikes, and moreover, they are not even close to the destructive machines that many associate them with. Only the fact that you are initially required to pedal your e-MTB in order to activate the pedal-assist functionality, makes it fundamentally different from a motorized vehicle.

Class 1 e-MTBs are also non-throttled, which means they are incapable of self-propulsion. There are physically no buttons to press or any grips to twist in order to engage the mid-drive and bypass pedaling. In fact, throttles are incompatible with the mid-drive systems manufactured for the Class 1 market. They were never developed to support self-propulsion to begin with. e-MTBs are exclusively operated with your legs, in an identical fashion as regular mountain bikes. The mid-drive is there to add additional power on top of your initial effort. It won't be able to kick out any power without the input of you, the rider. From their inception, e-MTBs have always been pedal-centric conveyances, using nothing but human effort as the primary driving force. The moment you stop providing torque, so does the mid-drive. Class 1 e-MTBs cannot provide any propulsion on their own. Their systems are precisely engineered to serve one purpose: to assist human effort. They were never meant to replace physical engagement. By restricting Class 1 e-MTBs from the trails, based purely on the assumption that *"e-Bikes have a motor, thereby are self-propelled,"* the Forest Service perpetuates a shortsighted mistake, in which they are conflating the operational characteristics of advanced pedal-assist systems with those of internal combustion engines. Unlike mopeds and scooters, which are the least powerful conveyances that can be classified as motor vehicles under those by the Department of Transportation, Pedal Electric Cycles (Pedelecs), which e-MTB are legally classified as, are recognized as bicycles under the Consumer Product Safety Commission's definitions - the federal agency that oversees e-Bikes since 2002. To continue banning e-MTBs, is to ignore the nuanced engineering and thoughtful purpose behind these specialized e-Bikes. It disregards the reality that Class 1 e-MTBs are fundamentally bicycles - human-powered machines enhanced by assistive technology, not motorized vehicles in the conventional sense.

While we're at it, it's worth addressing the elephant in the room. It is true that e-MTBs today are leaning towards the heavier side. For comparison, a full-power e-MTB from just 5 years ago - like my own - weighs around 52 pounds, which is about 17 pounds heavier than my regular mountain bike. In most cases, I ride my e-MTB more conservatively than my mountain bike. With greater weight comes greater downside. That downside is maneuverability. e-MTBs are slightly less nimble in that regard, which is a constant reminder and a key indication to me that handling technical terrain and tight corners requires extra caution. Practice and experience are invaluable precautions in scenarios like that. Practice always beats theory. Theory means nothing when you have no experience beforehand. The more you practice your riding skills, the better you get at taming your e-MTBeast. Even with the additional weight and the associated decrease in maneuverability, this is not a compelling reason against e-MTBs. This argument is just as valid as heavier riders riding regular mountain bikes, which are subject to the same laws of physics, making them and their bikes less maneuverable as well. Despite this, they are not restricted from entering the forest or participating in the sport. The added weight of an e-MTB is no different; it simply requires an adjustment in riding technique and approach. The more you ride, the more you become accustomed to the bike's handling characteristics. Your body adapts and naturally stays in synergy with the bike. And over time, the weight becomes a manageable factor rather than a hindrance. However, as technology continues to advance and lightweight e-MTBs eventually take the spotlight, long gone will be the days when they were synonymous with heavy and unwieldy. Medium-power e-MTBs have already started to defy this stereotype, so it won't be long until e-MTBs come in at a sub 45 lb standard.

When riding an e-MTB, there's always the possibility of running out of battery, leaving the rider with a hefty bike to pedal on their own power. Pedaling an e-MTB without assistance can indeed be challenging due to the bike's added weight, a factor that demands careful planning before any ride. However, this concern is not unlike the situation faced by everyday drivers who run out of gas. The key difference is that while cars out of fuel are rendered inoperable, e-MTBs with fully discharged batteries retain their functionality as regular mountain bikes. By design, modern day e-MTBs come with mid-drive units featuring freewheel mechanisms, allowing the pedals to spin freely even without electric assistance. Therefore, the possibility of a drained battery should not be seen as a valid reason to restrict e-MTBs from single-track trails, as they remain fully functional and capable of being ridden like regular mountain bikes, albeit heavier ones.

There is this philosophical argument which is largely based on the prejudice that anyone riding an e-MTB is cheating. But cheating at what, exactly? Are we in some sort of competition each time we hop on our bikes? Is the point of riding the trails to prove something, or is it to enjoy the ride? I've had people shout at me numerous times "You know that doesn't count, right?" Well, who's counting? Towards what that count is? Who decided there was a scoreboard for personal enjoyment in the outdoors? I look at this beautiful country around me and think to myself - none of this counts? Is my experience any less valid just because I opted for a bike that lets me enjoy the ride without completely exhausting myself? I don't think so. The idea that mountain biking only matters if you're pushing your body to the brink, wearing yourself down to shreds, is narrow minded and frankly, absurd. So is the idea that your ride "doesn't count" unless it's physically punishing; this is a relic of a mentality that turns something meant to be freeing and enjoyable into a trial of torment. Since when is the desire to soothe the strain of an ascent considered immoral? The old "Skiers versus Snowboarders" argument aside, isn't this the same logical fallacy when it comes to chair lifts, where people benefit from a piece of technology that allows them easy access to the top of the mountain so they can enjoy the downhill? There might be an irony in the fact that the machinery used for delivering skiers and snowboarders up top is powered and driven by a similar technological advancement to modern-day e-MTBs, but in a much smaller package. To keep these arguments local and relatable, how about diehard mountain bike riders who drive their cars up the Teton pass? They are also using technology to bypass the most taxing aspects of their journey. Yet only e-Bikes seem to trigger accusations of cheating. This same logic doesn't seem to apply when riders load their bikes onto trucks and shuttle up. How so? It's a classic double standard, rooted in a reluctance to accept new forms of technology as valid. The notion that pedal-assisted e-Bikes are a form of "cheating" only reflects a bias against any enhancement that deviates from an idealized and purist experience. I suppose people are just as morally ambiguous as I am, since they're willing to gain from a technological solution that helps alleviate unwanted stress when it benefits their own experience.

Beyond the significant health benefits of the activity itself, e-Mountain Biking is an elevated adventure that drives you happily insane. Why can't e-MTBs be for everyone who wants to have a good time out on the trails, without being dictated by gatekeeping elitists about what "REAL" mountain biking is? This sport is for everyone who dares to try it - whether it's using a regular mountain bike or an e-MTB. It doesn't have to be all about the "no pain, no gain" mantra; it's all

about responsibly having fun. And no gatekeeper gets to define how that fun is measured. Those who scoff at e-MTBs are not protecting the integrity of the sport - they are preserving their own egos. They may wish to hold onto their sense of superiority, but they don't get to decide the future of the sport. The true motives behind their criticism are crystal clear to me: it's not about fairness - it's about preserving their sense of entitlement and exclusivity, a badge of honor they think that only they should wear.

Off-Piste mountain biking is a stressful sport, that's not a secret to anyone. When ascending the trail on a conventional mountain bike, you're expending a considerable amount of energy just to grind your way upward. By the time you reach the summit, fatigue sets in - not just in your legs but also in your mind. Exhaustion not only compromises your ability to focus and handle the bike effectively on the descent, it also affects your emotional state. It's frustrating to even think that the uphill slog can rob you of the joy and precision you crave on those exhilarating descents. This is where e-MTBs shine. With the help of the pedal-assist functionality, my favorite rides are becoming significantly less stressful on my knees, and the climbs no longer take the fun out of the greatest reward that mountain biking has to offer. Sections that I previously may have thought were unrideable are now realistically achievable. I can cover twice as much ground and have 4 times as much fun. Yes, my math checks out. Going up on an e-MTB is now a genuine pleasure, not just a burden to bear and endure like it often feels on my regular mountain bike. Because of that, I have the mental capacity to actually admire the nature around me, rather than being consumed by my heightened emotional state due to physical discomfort. Discomfort, often manifesting as frustration or irritability, isn't just a personal battle; for many, it's a spark for exacerbations. By the time a rider is physically and mentally taxed mid-climb, patience is thin, and in the heat of the moment tempers can flare. It's not surprising that most conflicts arise on the trails themselves rather than at the trailhead. The heightened emotional state caused by physical exertion only amplifies any personal issue someone might have, turning what might be minor annoyances into outright conflicts. Pedal-Assistance is a game-changer in that regard. By relying on it for uphill sections, people are not just conserving energy for the ride ahead - they are also diffusing the tension by reducing the physical strain and the emotional edge that comes with it. It literally transforms the uphill grind from a draining ordeal into an enjoyable and energizing part of the ride. If everybody switched to riding e-MTBs, nobody would ever feel frustrated. Boom! Trail conflicts, solved! It's a stretch to say I deserve a Nobel Peace Prize for that, but there's some truth in the humor: when riders feel good and their energy reserves aren't depleted, the trail becomes a place of shared enjoyment, not simmering tension. It isn't just about feeling less tired; it's about being prepared for the downhill. I'm able to hit the descent with full mental clarity and physical strength, without having fatigue turning my ride down into a nerve-wracking battle for balance and control. With the drive system lending just the right amount of support, I can make steady progress up steep terrain and arrive at the top feeling somewhat fresh. Although I'm still drenched in sweat when reaching the top, I am not gasping for air like I would have if I were on my regular mountain bike. And since I don't have to wait long to recover my breath, I can drop back down as soon as I finish admiring the gorgeous views of the Tetons.

Personally, I consider myself to be an open-minded individual and am always willing to engage in conversation with anyone who has something to say. In fact, I often encourage people to speak out. I believe the quieter we are on these types of subjects, the more open to interpretation others become. If we don't have the wherewithal to meet each other with what is reality, then all we do is retreat to our little corners of incomplete information and further contribute towards it being metastasized. Lack of proper communication often creates an informational vacuum, and when there is a vacuum, someone inevitably fills it with whatever they see fit. This is exactly what happens today between riders who ride mountain bikes and those who ride e-MTBs and why we still have a group of people who are viewing them as inferior or as a cheating tool, leading to a lack of acceptance and unfair treatment. This simple misconception is so ingrained in the mentality of those who despise e-MTBs that they fail to see reason. They're simply unfamiliar with the technological nuances and distinct features of these bikes. To this day, people are convinced that e-MTBs are just lightweight dirt bikes in disguise. They assume that e-MTBs have a throttle, dozens of horsepower, and can reach 45 miles per hour like a dirt bike. They couldn't be further from the truth. I often counter this misconception by highlighting that Class 1 e-MTBs lack self-propulsion and are incapable of reaching such speeds, let alone having that exaggerated amount of power. It's crucial to emphasize that advocacy groups and enthusiasts exclusively seek trail access for Class 1 e-Bikes, not those equipped with throttles. While certified throttle-based e-Bikes aren't inherently unsafe, the presence of throttle support contradicts the principle of non-motorized character and deviates from the pedal-centric experience that defines e-MTBs. It's not a matter of safety but rather a matter of principle; An e-Bike with a throttle is seen as motorized, while one without a throttle is not.

While my experiences and insights might be crystal clear to me, I recognize they might not resonate with everyone. Since I ride both, regular mountain bikes and my e-MTB, I have a perspective from which to look and compare one to the other. I stand by my words when I say "Your interpretation of what you think you know is far from accurate when you have no accurate information to work with." The concept of e-MTBs is easily mistaken for something else when people let their prejudices fill in the missing details. The more you familiarize yourself with it, the more you realize it's rather similar than it is different from a regular mountain bike. The best way to understand the appeal and functionality of an e-MTB is to experience it firsthand. If you haven't already, I wholeheartedly encourage you, or anyone else who finds themselves opposed to Class 1 e-MTBs, to try one yourselves. Picture local bike shops teaming up with the Forest Service and community groups to host a few weekend events throughout the summer. These events would offer the perfect opportunity to test ride e-MTBs on off-roads or milder trails, providing an immersive experience that's both educational and thrilling. This isn't just about showcasing the smoothness and capability of the mid-drives; it's about understanding the nuanced interplay of technology and nature firsthand. It is imperative for everyone to comprehend what e-MTBs are, and the nuances involved in operating them. Trust me when I say that I'd much rather share this practical experience with you than have you sift through a 3-hour long letter filled with technical details and theoretical musings. No matter how well-crafted and well-produced it might be, it cannot replicate the exhilaration of actually feeling the machine beneath you as you navigate the trails and rugged terrain. Practical experience is essential for truly grasping what e-MTBs are all about. It's one thing to read about the mechanics, benefits, or even best

practices for handling these bikes, and quite another to physically immerse yourself in it. By engaging in such a practical experience, those who might still be skeptical - be they elite outdoor enthusiasts or land managers - this kind of hands-on experience could pave the way for an informed perspective. It may even help curb the spread of unfounded commentary on this very proposition.

What's most bizarre about all of this is if you ask anyone strongly opposed to e-Bikes to define what an e-MTB is, they would either struggle to provide an accurate description, or give you an answer that's largely influenced by prejudices against throttle-based e-Bikes commonly seen on the bike paths. They may not realize that there's much more to e-MTBs as a whole. It's not a secret that some people hold strong opinions on this subject, yet very few can articulate substantive arguments in support of them. My observations are based on personal interactions where, when asked why they distrust e-MTBs, people often struggle to provide substantial reasons beyond an inexplicable feeling that it's somehow wrong. Imagine if Bridger-Teton National Forest held its comment period live, accepting verbal commentary instead of electronic submissions, where participants would be asked a few follow up questions after they voice their opinions. In such circumstances, it's conceivable that supportive voices would outweigh opposing ones by a substantial margin. Those who hastily express unfounded complaints in writing likely wouldn't even participate, knowing they would struggle to explain themselves if pressed for elaboration. When it comes to interactions that require presenting coherent arguments or even acknowledging opposing viewpoints, very few muster the courage to articulate their views face-to-face without the shield and impunity of the internet. It's easy to engage Caps Lock on the keyboard and comment online "E-BIKES DO NOT BELONG HERE !!!". It's much harder, however, to explain in person why that is, without spouting arguments, that feel more like gut reactions than reasoned stances. The anonymity of the internet strips away the need for personal accountability, creating a space where individuals can vent frustrations without ever being challenged. This phenomenon is yet another indication that in the vast, anonymous expanse of the internet, people often rage for the sake of raging. The fury isn't about resolution or constructive debate; it's an endless cycle of noise, perpetuated by the simplicity and speed with which emotions can be shared online. It becomes clear that many of their arguments aren't grounded in knowledge or experience but are fueled by a reactionary mindset.

Amidst the overwhelming noise of internet commentary, they occasionally harbor valuable insights, offering perspectives that reveal overlooked nuances. Advocates, regardless of their cause, sometimes become entrenched in their own beliefs that they miss moments of clarity. The challenge, of course, lies in sifting through the torrent of reactions to unearth those insights. It's an uncomfortable task, but as an advocate for responsible e-MTB use, I am committed to maintaining an open mind and discerning what deserves attention, even if that means navigating spaces rife with negativity. A year and a half ago, I personally downloaded and reviewed every comment submitted on this proposition, and to see if anything had changed, I did the same thing this year. I've read and analyzed over 150 new submissions for the second round or commentary. Surprisingly, I have noticed a considerable amount of acceptance, which does inspire confidence. However, still, among those who continue objecting I keep finding no scientific evidence supporting the popular belief that e-MTBs pose a threat to the existing trail networks. Most of the objections I encountered seemed to conflate the purpose of

this proposition focused on Class 1 with the entire fleet of bicycle-style e-Bikes. None of them objected to e-MTBs specifically. The more comments I read the more I've come to realize that people are not aware of their existence, let alone know of the advanced engineering and safety standards that distinguish them. e-MTBs, while undeniably a subset of the general e-Bike industry people have strong opinions about, demonstrated the most pristine safety record among all categories of bicycles in the past decade. Unfortunately, this crucial detail is often lost on detractors.

While there is a vocal opposition to e-MTBs use on single-track trails, it's important to recognize that there are also mountain bikers and other outdoor enthusiasts who appreciate the benefits of e-MTBs, but often remain silent and hesitate to express their support. This hesitancy stems from peer pressure and the fear of alienating friends and fellow riders who are staunchly against e-MTBs. This creates a complex social dynamic where the vocal minority opposing e-MTBs dominates the conversation, overshadowing a more moderate and supportive majority. The divide is particularly evident when comparing the backcountry areas of National Forests to recreational resorts. In the backcountry, the rejection of e-MTBs among gatekeeping elitists is still fierce, with arguments often focusing on preserving the natural environment exclusively for traditional trail use. In contrast, at recreational resorts, like Jackson Hole Mountain Resort, where e-MTBs are permitted on lifts and for downhill riding, there is a noticeable acceptance among riders. The acceptance seen in other areas suggests that with careful management, education, and community involvement, this resistance can be effectively reduced. This observation yet again underscores the importance of persistence and advocacy in effecting social change, as initial resistance can eventually give way to widespread acceptance and normalization. Given this context, if e-MTBs were to be allowed access to the trails, it is plausible that their acceptance would increase over time. If history is anything to learn from, it's that what was once protested by the old guard, inevitably becomes the norm for the new generation.

Before I continue, I have a message to our fellow mountain bikers who swear their lives they will never ride an e-MTB; Hats off to all those of you who are dead set on continuing wearing yourselves out and flying up the climbs for the rest of your life. I respect the determination to stand for something that's near and dear to your heart. Your commitment to torturing yourselves so you can feel rewarded for your temporary suffering is truly remarkable. Your achievements are yours to keep. Nobody can take away the fruits of your labor or the lengths you go to obtain them. Your physical strength, however, is the most valuable asset out of all those gains. Unlike your precious trophies, your current physical strength will only fade away with each passing year. There will be a day when you won't be capable of taming the trails on your own power. Certainly not at the length you are currently accustomed to. Unlike your body, your mind will not be ready to hang up the gear. When that day comes, you will search for excuses for why you should not ride an e-MTB, and you won't find one. Pride stops the moment it becomes an inconvenience to you. Your desire to be out on the trails will grow over your pride. And eventually, your idea of staying "true to myself" will shrink into irrelevance. What you oppose is not technology itself, but the phantom threat you think it poses to the cultural identity you've built around effort and accomplishment. So, ask yourselves: If you truly love what you do today, why would you choose to block this implementation when it can certainly benefit you in the future?

I would also like to take this opportunity to remind everyone that e-MTB riders are not an invasive species encroaching on regular mountain biking territory, nor do they seek privileges beyond what mountain bikers already enjoy. e-MTB enthusiasts simply aspire to ride alongside everyone else. Mountain bikes are not going away anytime soon. They still hold a special place in the hearts of many, myself included. They will remain a popular choice for decades to come. Rest assured, e-MTBs are not displacing them. Although e-MTBs don't fulfill a pressing demand, and not everyone is enthusiastic about the concept, it's important to note that no one is being coerced into embracing this technology. Those who see the value in what e-MTBs offer are free to adopt them, while others can continue engaging with traditional forms of cycling, without ever feeling threatened by the existence of the assistive technology. Personally, I believe e-MTBs open the door to a groundbreaking experience. But that's just my perspective, not a mandate. And while it is my personal belief that people who are hesitant about the concept of e-MTBs are missing out greatly, not in any shape or form I would ever force anyone onto them. My advocacy is not about imposing my beliefs on others; it's about respecting individual choices. Everyone has the freedom to enjoy the great outdoors in their chosen ways, as long as they live their best lives and mean others no harm.

Most people do not possess in-depth mechanical knowledge of their cars, yet they are not barred from driving them. Instead, as long as users follow basic safety guidelines and comply with legal standards, they are free to benefit from the technology without needing to grasp its complexities. To further the analogy, just as most people don't need to understand every detail about how their vehicles operate in order to drive them, the Forest Service doesn't need to fully grasp the intricate workings of e-MTBs to make decisions about their use on trails. Much like how society relies on evidence-based research and testing to confirm the safety and environmental impact of vehicles before they are allowed on roads, the Forest Service can adopt a similar approach with e-MTBs. The key is to focus on the magnitude of scientific evidence, numerous studies and data points showing that e-MTBs have no more significant impact on trail erosion or user safety than conventional mountain bikes. Just like in the court of law, evidence is the foundation upon which decisions are made. It's the greatest form of defense, providing certainty and objectivity in determining the validity of claims. Therefore, scientific evidence should be enough to justify allowing e-MTBs on trails where they are currently prohibited, without requiring the Forest Service to delve into the technical details of these conveyances. It's not about understanding every facet of the technology, it's about trust in the evidence and the broader principles of land stewardship. If data consistently shows that e-MTBs are not a threat to the forest environment, then there is no reason for continuing to withhold access to them. The focus should shift to creating it instead, just as cars are allowed on roads not because everyone knows how an internal combustion engine works, but because they've been proven safe and functional within the established guidelines. While the Forest Service is under no obligation to dive into the granular details of pedal-assist e-MTB technology, I encourage them to explore this knowledge nonetheless. Gaining a deeper understanding can open a whole new world for those who are curious. The presented evidence backed by science and comprehensive research already provides a solid foundation for decision making. However, the essence of understanding lies not in how meticulously crafted that evidence is, but in the interplay of actions and discovery. So, this summer, let's trade the pages for pedals, the long reads for long rides, and discover the true essence of e-MTBs.

Rapid e-Bike Evolvement, Rumors and Speculations

The world of e-Bikes is indeed experiencing a rapid evolution. Notable trends in the market are the integration of electronic components into the overall design, such as headlights, wireless dropper posts, wireless gear shifting, semi-autonomous features such as self-adjusting suspension, automatic shifting, and traction control systems. Among the most fascinating developments are concepts and working e-MTB prototypes equipped with Mid-Drive Gearbox Units; solutions that essentially replace the rear derailleur and the cassette with an internal gearing mechanism. These systems allow for gear changes even at a standstill, combining this functionality within a single Pedal-Assist Mid-Drive Unit. As is the case with every European novelty, e-MTB with Mid-Drive Gearbox Units have yet to be made available for purchase in the United States. But regardless of regional availability, e-MTB manufacturers are always striving for seamless integration of mid-drive solutions into their frames, making e-Bikes look increasingly like regular bicycles. These trends are likely to continue, with future e-Bikes becoming even sleeker and more aesthetically pleasing.

While it's in our DNA to crave a little more, to push the boundaries and explore what's possible; in the e-MTB industry it is certain that they will remain within the same classification. The current 3-tier classification is solely based on the maximum speed at which the motor can assist and whether a throttle is present. Enhanced integration of mid-drive systems and batteries for more aesthetically pleasing looks won't directly impact the classification system as these visual improvements do not alter any speed or power characteristics. Peak power, like any other metric, simply represents an allocated bandwidth that allows the system to dynamically adjust its output based on the terrain or rider's input. It doesn't mean it continuously outputs its maximum power. For instance, all Class 1 mid-drive units are uniformly rated across all brands at 250 Watts of nominal power, equivalent to 1/3 of a horsepower. Model dependent, their peak power output varies between 565 and 600 Watts, which is precisely 3/4 to 4/5 of a horsepower. If you do the math, there is an additional 150 Watts of headroom for manufacturers to build their next-generation products and still remain compliant with existing regulations. Even if the power of mid-drives eventually increases, it will not exceed the 750 Watt limit imposed by the 3-tier classification system. It would only bridge the gap between 600 Watts and 750 Watts. While a more powerful mid-drive unit would be welcome, it would rarely be necessary for daily use. Riders familiar with full-power Class 1 e-MTBs can attest that the current peak output is sufficient for everyday riding. Unless there are drastic revisions planned for the current 3-tier classification system - of which there are neither formal regulatory proposals nor any solid indications - the e-MTB industry will remain focused on Class 1, as it is the most suitable class for a spiced up, pedal-centric experience.

As technology continues to advance at a rapid pace, this progress also tends to be accompanied by a surge of rumors and speculations. Fueled by curiosity and the human tendency to speculate about the unknown, rumors spread very quickly. A couple of prominent examples within the general e-Bike industry are the rumors of introducing a fourth tier (Class 4), and the inevitable consolidation of the existing classes into one, unified category. The idea of a Class 4 e-Bike originates from the gray area currently occupied by unclassified and unrestricted e-Bikes, which have power outputs exceeding 1

horsepower. Although they cannot be assigned a class number due to exceeding power limits, these e-Bikes are still allowed to exist simply because they are marketed as off-road vehicles, meaning they cannot be legally used on public roads. Even though these models come with adjustable speed settings after the purchase, they are still constrained by natural forces. Mechanical limitations and environmental conditions impose boundaries no matter how much more power they pack. At a certain point, physical forces such as air resistance, rolling resistance, and drag, reach equilibrium with the bike's mechanical output, resulting in a natural terminal velocity. These machines might not be designed to defy the laws of physics, but their potential to reach and slightly exceed Class 3 speeds on optimal terrain and weather conditions, opens the door to an inevitable conversation about how they should be regulated. Naturally, this leads people to speculate that these higher power e-Bikes might eventually be designated their own class. We already have Classes 1, 2, and 3. It seems natural for them to assume that the next step would be Class 4. However, this assumption is a simple extrapolation from numerical progression of the current 3-tier classification system, rather than any concrete regulatory movement. Which again, there is no formal or developing proposal for.

Meanwhile, the notion of consolidating all e-Bikes into a single class reflects a desire for simplicity and less fragmentation. This desire stems from the complexity and specificity of the current regulations, which upon reading them for the first time leads to more confusion rather than understanding. While the idea of consolidating all e-Bike classes into a single unified category might seem appealing for the sake of simplicity and regulatory ease, allow me to present to you a strong case for why this would be impractical. The term "e-Bike" is a broad category that encircles a wide range of electrically powered conveyances. Within this broad category, "bicycle-style e-Bikes" is a specific subcategory. The existing 3-tier classification - Classes 1, 2, and 3 - further distinguishes these e-Bikes within this subcategory based on their operational characteristics, such as speed and engagement type. Given this context, the idea of consolidating all e-Bike classes into a single category appears counterproductive and redundant. The classes are already consolidated under the umbrella of bicycle-style e-Bikes. The 3-tier system simply provides a framework to distinguish between different performance capabilities within that category. Removing these distinctions would only generate confusion rather than simplify matters. If any change were to occur, it would more likely be the addition of a fourth tier rather than the consolidation of all classes. Given that there are already e-Bikes on the market that exceed the speed limits of Class 3 - yet do not overlap in terms of nominal power with the least powerful conveyances that legally qualify as motor vehicles - such an addition appears to be a more practical response to market realities. From a regulatory standpoint, vehicles exceeding 750 Watts nominal (1 horsepower) are already classified under a separate, stricter framework (e.g., mopeds and motor-driven cycles). To justify introducing a new class bordering this regulatory threshold, the distinction would need to be meticulously crafted - ensuring that bicycle-style e-Bikes remain separate from strictly regulated motor vehicles like mopeds and scooters while also preserving the integrity of existing classification frameworks. One way to achieve this would be through intentional exploitation of legal language ambiguity - specifically regarding nominal vs peak power definitions. The CPSC does not explicitly clarify whether its 750 Watt limit refers to nominal or peak power, though industry standards and regulatory enforcement typically interpret it as nominal power. If a Class 4 were ever proposed, it would need to explicitly define its

maximum power requirement in terms of 750 Watt nominal, possibly with an allowable higher peak power ceiling to differentiate it from fully unregulated e-Bikes. However, aside from speculations and industry discussions, there are no strong indications that such a classification is imminent.

While I cannot invalidate these rumors in a meaningful way, I can confidently state that they are highly unlikely to materialize anytime soon, certainly not within this decade. Allow me to explain why that is: Rumors of introducing a fourth tier (Class 4) and rumors of inevitable consolidation of the existing ones, fail to acknowledge the lengthy processes that would be required to make such a sweeping change. Based on the current trends and the time required for policy development, successfully altering the already established and widely adopted 3-tier classification to either add additional classes or to consolidate the existing ones into one unified class, would take at least 10 years of extensive and comprehensive processes to obtain legislative and regulatory approval. This estimate by the way doesn't account for the widespread adoption and market adjustment time that would be needed after any legally recognized changes. Resistance from those who are firmly opposed to e-Bikes could also lead to stifling proposals and delay adoptions. Case in point; this very proposition that has been silently pushed a year back due to locally generated noise, which yet again underscores the complexities of the current regulatory environment. When factoring in obstacles like these, it's easy to see how the timeline could stretch an additional 5 years beyond the initial estimate, making any significant changes highly improbable in the near future. Even in the event that such changes were to occur within the next 15 years, they would almost certainly focus on incorporating and addressing future technological advancements in e-Bike design and functionality.

Moreover, the current 3-tier language and terminology have just been successfully adopted by the Forest Service in its recently updated Travel Management Rule. It is highly unlikely that the Department of Agriculture would have adopted that language without thoroughly assessing the risk of near-term changes. It took over 6 years for them to adopt it, not by their own volition, but rather due to collective efforts of leadership teams and advocacy groups. Advocates for responsible e-MTB use have successfully built credibility with land managers, focusing exclusively on securing access for Class 1 e-Bikes, which are seen as the most trail-friendly and least disruptive conveyances. Just as advocates showed no interest in advocating for Class 2 and Class 3 e-Bikes, they would equally remain disinterested in supporting access for a new, hypothetical Class 4. Since such a development would neither be driven by the e-MTB industry nor supported by its advocates, it would not complicate matters for the Bridger-Teton National Forest in any shape or form. Regardless of heavy speculations that it might be open to self-classification, the introduction of such a tier to the existing framework would still fall outside the scope of the current proposition focused on Class 1. There would simply be one more class that no one would be pushing for access to, just like nobody currently does for classes 2 and 3. These classes have been out for nearly 9 years since their legislative approval, yet there have been no dedicated Class 2 or Class 3 e-MTBs on the market. Given this context, it's safe to extrapolate that the e-MTB industry, which is pioneered by reputable and respectable mountain bike brands, does not intend to expand their e-MTBs offerings beyond Class 1. Consequently, developments and implementations of any hypothetical Class 4 e-MTBs are highly implausible. Why would the government even approve such a class, when the ability to switch

classes on one's own defeats the purpose of classification? It is the government body that imposes those restrictions, not the rider. Those who hold the reins of policy are not giving that power to the people. As individuals who technically work for the government, I am sure you are well aware of that. I do not foresee the Forest Service undergoing another Travel Management Rule revision just to accommodate any new changes in the current 3-tier system, let alone giving people the autonomy to self-classify their own conveyances.

It is also worth pointing out that the rumors of introducing a 4th tier are fundamentally opposed to rumors of consolidating all existing classes. These two ideas represent opposite ends of the spectrum: one is exploring further differentiation and specificity, and the other is looking to simplify and unify. Pursuing both simultaneously would be contradictory, as they would chase 2 different perspectives. It's either one or the other; it cannot be both at the same time.

Refining the language in the current 3-tier classification system; The way the classes are currently structured may inadvertently suggest to first time readers that they represent a linear progression - one in which the next class is simply an upgrade to the previous class. In reality, these classes represent entirely different categories of e-Bikes, designed to serve distinct purposes and cater to different user groups. They are not progressions. This misunderstanding is pervasive and misleading, and it is obscuring the actual distinctions between the categories. Unfortunately, because of the way these classifications are framed, there is a real risk that people, especially land managers, might assume that Class 2 is nothing more than a Class 1 e-MTB with a throttle. In the context of responsible use of e-MTBs on National Forest lands, this misunderstanding becomes particularly problematic. Land managers may review the classifications, envisioning the e-MTBs we advocate for under Class 1, and then assume that Class 2 e-Bikes are essentially the same as e-MTBs, just with one extra feature. This assumption could easily skew decision-making and reinforce the idea that these bikes operate in similar ways. They do not! Aside from the numerical value of speed and power, they share very little in common. Class 1 and Class 2 e-Bikes are fundamentally different, and it's critical that the language reflects this, preventing this misconception from further spread.

Four key areas I believe deserve particular attention are:

1. Clarifying that the term "motor" in the context of bicycle-style e-Bikes does not equate to an internal combustion engine. By addressing this early, the language can shape people's perception about what bicycle-style e-Bikes are, countering the common misconception that all e-Bikes are inherently motorized.

2. Recognizing that the term "motor" in the context of Class 1 and Class 3 e-Bikes refers to an assistive mechanism rather than self-propelling engines. This is a prevalent misconception among those unfamiliar with the technology. It is crucial to ensure that people understand from the outset that Class 1 e-MTB mid-drive motors do not operate in ways that conventional vehicle engines do, even though the assistive mechanism does contain the word "motor" in it. Perhaps, this could be rectified by stripping the word "motor" from mid-drive systems, and rebranding them as "e-Drive" instead.

3. Adopting language that eliminates any possibilities of people assuming that the 3-tier classification system is a linear progression. Classes are not direct step ups from the previous numerical class, they represent different types of e-Bikes, designed to meet different needs.

4. Prohibiting any ambiguous interpretation that could allow for marketing products across multiple classes. The language in which the current classification frameworks are written, does not explicitly forbid borrowing operational characteristics from one class and applying them alongside other classes. For example, by programming bike controllers such that they enable throttle assistance up to 20 mph (meeting the Class 2 criteria) while allowing pedal-assist functionality to reach speeds of 28 mph (aligned with those of Class 3), it is possible to straddle both classification simultaneously. Lots of companies have been, and continue exploiting this regulatory loophole.

Despite the need for more concise language, however, this is also something that's unlikely to materialize anytime soon. To the best of my knowledge, nobody is currently working on formal proposals or amendments for this system.

Side note concerning class upgrades; It is a very common misconception that moving from a Class 1 to a Class 2 e-Bike represents an upgrade. It does not. The assumption that Class 2 e-Bikes are a step up from Class 1 often stems from the belief that adding a throttle on top of the numerical values of the Class 1 offers greater functionality. On paper, it may appear that it does. However, in reality, it's quite the opposite. The structural differences between Class 1 and Class 2 are stark, with Class 2 models frequently featuring weaker drivetrains, simpler suspension systems, or no active suspension at all. Class 1 e-Bikes are also among the priciest and highest-quality conveyances on the market, while Class 2 bikes are often built for the casual rider, with cost efficiency in mind. A critical factor contributing to the lower cost of Class 2 e-Bikes lies in the type of motor engagement. Lots of people do not realize that Class 2 e-Bikes use exclusively rear hub motors, whereas Class 1 and Class 3 e-Bikes are predominantly mid-drive based. This distinction in engagement type plays a major role not only in terms of performance but also in price. The higher price tag of Class 1 e-Bikes, for example, partly reflects the extensive engineering that goes into developing the mid-drive systems, designing specialized frames to accommodate those systems, along with dedicated batteries that can seamlessly integrate into the lower part of the frame. In contrast, Class 2 e-Bikes have their motors placed in the rear wheel and their battery packs are typically bolted externally rather than being integrated into the frame. This external placement significantly reduces manufacturing complexity and cost, but it also compromises overall performance, particularly in terms of weight distribution and handling. A rear hub motor, while sufficient for short commutes or leisure town rides, cannot match the precision, torque, or responsiveness of a mid-drive system, which is why Class 1 e-Bikes are so highly valued by enthusiasts who require these features for more demanding terrains and activities, such as mountain biking. This market segment doesn't require advanced traction control systems, sophisticated suspension, or powerful brakes that are found on Class 1 models. Because Class 2 e-Bikes are targeted toward casual riders, there's little incentive for these manufacturers to

equip their bikes with high-end components. The focus is on affordability and ease of use rather than performance. The engagement type is just one of many factors that sets these classes apart, and it further underscores why moving from a Class 1 e-Bike to Class 2 is not an upgrade – it is a step down in both quality and performance. To "upgrade" from Class 1 to Class 2, is to fundamentally misunderstand what each class offers practically. Class 2 e-Bikes serve their purpose, but they are not a progression from Class 1 – they represent a different, less demanding use case, even when the numerical progression of the 3-tier classification system may inadvertently suggest otherwise.

Anyway, I digress. Will there be even greater technological advancements in the future? Yes. Will these advancements affect the current 3-tier classification? Unlikely. Advancements in technology are not expected to fundamentally change the classification of Class 1 e-Bikes, as they still adhere to the basic principles of pedal-assist operation and limited speed. If any amendments were to be made, they would aim at refining the existing regulatory language that aligns with technological evolution of e-Bikes, ensuring consistency rather than introducing sweeping reforms that fundamentally alter the established 3-tier system. Instead, most of the effort will be focused on improving in existing areas, such as product reliability. Continued enhancements in battery technology to increase lifespan and reduce weight will remain a priority, alongside greater power consumption efficiency of the mid-drive systems. Future e-MTBs will feature an even more refined integration, with components like mid-drives and batteries better protected from mud and water ingress. For an even smoother riding experience, future e-MTBs that will come equipped with integrated mid-drive gearbox systems are expected to use carbon reinforced belts instead of chains, virtually eliminating all the noises associated with shifting and chain slapping. Since belts are permanently fitted into the drivetrain, they do not experience any lateral stress, providing consistent performance over their lifespan without the variability introduced by chain stretch and wear. In a slightly ironic development, future mid-drive solutions will shift away from using belts internally, and instead use mechanical components only. Continuous research and development in materials science will also lead to frames and components that are even more resistant to the wear and tear of vigorous riding; particularly ones that have even greater dampening properties.

Again, while these improvements are expected to significantly enhance future e-MTBs, they won't alter the fundamental aspects of speed and power that determine their classification. It is much easier for engineers to adapt to the law than to hope the law will evolve quickly enough to match their latest inventions. Engineers know this very well. This is why many product developers and engineers opt to adjust their designs to comply with existing rules rather than fight a system that is not designed to move at the speed of innovation. The current classification system, despite its complexities at first glance, remains an effective way to balance usability and regulatory clarity, at least for those who understand the nuances of the e-Bike market. As such, the core principles behind the 3-tier classification system are likely to remain relevant for the foreseeable future.

Arguments for Non-Motorized Classification, in Policy and View

The blanket classification of e-Bikes as motorized vehicles has sparked considerable debate among stakeholders. Advocates and enthusiasts familiar with the technology believe that bicycle-style e-Bikes with characteristics similar to traditional bicycles, such as non-throttled Class 1 e-MTBs, should not be subjected to the same restrictions as high-power motorized vehicles.

Class 1 e-Bikes operate at speeds and in ways similar to traditional bicycles, which are limited to 20 mph with pedal assistance, a speed easily achievable by experienced cyclists. These bikes come equipped with specialized, electrically powered mechanical components called “Pedal-Assist Mid-Drive Motors”. Regardless of brand, their nominal power is uniformly rated across all brands at 250 Watts, equivalent to 1/3 of a horsepower. Depending on the model, their peak power output can vary between 565 and 600 Watts, which is precisely 3/4 to 4/5 of a horsepower. For comparison, a well-trained cyclist can sustain power outputs between 200 and 400 watts during intense cycling sessions, with peak outputs reaching higher levels temporarily. This shows that the power output of a Class 1 e-Bike, especially at nominal levels, aligns well with the peak physical capabilities of human cyclists. Unlike high-powered motorized vehicles, Class 1 e-Bikes require continuous pedaling to maintain propulsion. This design ensures that the rider remains actively engaged in cycling, with the motor’s role being to assist, rather than fully power the bike. The pedal-assist system ensures that these e-Bikes maintain a cycling experience that is fundamentally similar to riding regular bicycles, both in terms of speed and handling characteristics. This feature underscores the argument that Class 1 e-Bikes, despite their electrical assistance, should be categorized differently from high-powered motorized vehicles. The integration of human effort as the primary force driving the bike, supports the regulatory framework that recognizes the distinct nature of these e-Bikes, preserving their identity as bicycles rather than motorized vehicles.

When riding an e-MTB downhill at speeds over 20 mph, using gravity and momentum, the pedal-assist system remains disengaged as long as the speed is detected to exceed the operational threshold. This means that if the rider chooses to pedal while already exceeding the speed limit, no additional power will be provided by the system. The bike's performance at this point relies entirely on your physical effort; the mid-drive unit does not contribute to maintaining or increasing speed. Essentially, pedaling the bike over 20 mph becomes a purely human-powered endeavor, requiring the rider's own strength and endurance to continue propelling the bike forward. Lack of assistance at higher speeds is a ***deliberate*** design choice, ensuring that the bike remains within regulatory speed limits and providing a natural riding experience that mirrors traditional cycling when reaching or exceeding the speed cutoff. I note “***deliberate*”** because mountain bike brands producing e-MTBs are well equipped with knowledge to develop a Class 3 e-MTB. In fact, it would just be a matter of one firmware update for the main controller on the bike. Yet, because respectful brands strictly adhere to this approach, which is to preserve this beautiful conveyance exclusively in Class 1, this will never happen. Genuine e-MTBs will remain in Class 1 for decades to come.

e-MTB mid-drives are primarily rated based on their maximum cadence rather than their maximum revolutions per minute (RPM). Cadence specifically refers to the rotational speed of the crankset,

which is the component of the bike that the rider turns with the pedals. This metric is particularly important for mid-drive motors because it directly reflects the pedaling dynamics and effort of the rider. Mid-drive systems are engineered to complement the rider's pedaling by providing power that aligns with or enhances their initial pedaling effort, optimizing performance within a specific cadence range, with 55-70 RPM being the sweet spot. The maximum cadence rating of a mid-drive indicates the highest pedaling speed at which it can assist the rider. Typically, this maximum cadence falls between 90-120 RPM. If you haven't noticed by now, these numbers are significantly different from the RPM ratings of conventional vehicle engines, where RPMs are represented in the thousands. The focus on cadence rather than higher RPMs underscores that e-MTBs are designed to augment human power rather than function as fully motorized vehicles. This distinction is further reinforced by how mid-drives are rated in watts rather than horsepower. Horsepower is directly associated with vehicle engines, while watts are not. This watt-based rating further aligns with regulatory perspectives, such as those of the Consumer Product Safety Commission and Department of Motor Vehicles, which do not categorize Class 1 e-MTBs equipped with pedal-assist mid-drive units as motor or motorized vehicles.

A significant part of the confusion around bicycle-style e-Bike stems from the terminology used in it. The presence of the word "Motor" in the "Pedal-Assist Mid-Drive Motor" is what leads to misconceptions, as it inadvertently suggests a similarity to high-power motorized vehicles. e-MTBs are not motorized vehicles, certainly not in the sense that many associate them with. Pedal-Assist Mid-Drive Motors were never designed to operate in ways combustion engines do. The regulatory body, Department of Motor Vehicles, does not recognize these mid-drive systems as motors in the conventional sense, as they do not meet any of the requirements to be given that classification. Therefore, adopting alternative terminology such as "e-Drive" to describe the pedal-assist systems, will help differentiate these bikes from fully motorized vehicles. This rebranding will help reshape perceptions and highlight the fundamental differences between e-MTBs and motorized vehicles. I kindly remind everyone that it was this very reason why e-Bikes were banned from the forest in the first place. It's because people hinged on the presence of an electric component that has the word "motor" in it, and self assigned it meaning based on their own interpretation of what things are, rather than focusing on the operational characteristics of that component. The presence of the word "motor" only validates something people already believe, which is that if there is a motor involved, it's automatically a motorized, self-propelled vehicle in the conventional sense. No! The word "Motor", alone, without context, doesn't provide enough information about how the e-Bike operates or its legal classification. It's not entirely correct to assume its operational characteristics based solely on one isolated word. Despite the presence of the word "motor," these systems are designed to uphold the fundamental principle of cycling: movement powered by human effort and amplified by technology. This semantic confusion needs to be rectified by adopting precise terminology that solely petrain to bicycle-style e-Bikes, particularly those that are based on mid-drive systems.

Rebranding mid-drive e-MTBs as a unique form of assistive technology, rather than categorizing them alongside motorized vehicles, will greatly enhance their appeal and acceptance among both consumers and regulatory authorities. While correcting this course legislatively would be ideal -

similar to ongoing rumors and speculation about introducing a fourth class, refining the language in the 3-tier classification system, or consolidating all of them - such a sweeping change would require yet another lengthy and comprehensive legislative process, which is highly unlikely in the foreseeable future. This challenge was particularly evident during the recent revisions of the Travel Management Rule, where the e-MTB industry lobbied for more lenient regulations akin to those governing traditional bicycles. Despite those efforts, there have been no amendments to the definition of a motor vehicle, and Class 1 e-MTBs were not granted the same access rights as regular mountain bikes. Therefore, it is essential for everyone involved, including industry leaders and advocates, to reach an interim consensus on the language used to describe these electrical components. A practical first step would be to stop using the word "Motor" when referring to mid-drive units and instead use more precise terms, like ”Drive Unit", "Pedal-Assist", or simply "Assist" as the preferred terminology. This semantic change is crucial because the words we choose significantly influence public perception. Clearly distinguishing mid-drive e-MTBs from fully motorized vehicles will help position them more favorably in both the market and the regulatory landscape. This strategic shift emphasizes the distinctive advantages of mid-drive systems, which augment the cycling experience without the drawbacks commonly associated with fully motorized vehicles. By focusing on these unique benefits, stakeholders can reshape public perception and build a stronger and more positive identity for e-MTBs within the National Forests.

From a regulatory perspective, the Consumer Product Safety Commission (CPSC) classifies low-speed e-Bikes with motors of less than 750 Watts as bicycles. This metric serves as a practical threshold distinguishing bicycle-style e-Bikes from higher power motorized vehicles, such as mopeds and scooters. CPSC further supports this distinction by classifying all Class 1 e-MTBs in the United States as Pedelecs (Pedal Electric Cycles), which rely on pedal assistance rather than a throttle. This classification is further bolstered by the adoption of the 3-tier system by 41 states, which differentiates e-Bikes based on speed and assistance type, with Class 1 being the least intrusive. Additionally, on August 29, 2019, Secretary Order #3376 expressly exempted all bicycle-style e-Bikes from the definition of motorized vehicles on lands managed by the Department of the Interior. This exemption further aligns with the Department of Motor Vehicles’ stance that bicycle-style e-Bikes do not require the same financial responsibility, driver’s license, or license plate requirements as motorized vehicles. On each bike path in Teton County there are signs that read “No Motor Vehicles”, yet bicycle-style e-Bikes are legally allowed to use them. Could that possibly be an indication that our local government classifies them separately from motor vehicles? Or could this allowance be grounded in state-level exemption? The answer is Yes! The state of Wyoming is one of those 41 states that has adopted the 3-tier classification system and further recognizes these distinctions. It is explicitly stated in the Wyoming Statutes **31-5-707**, section **(a)**, that "**An electric bicycle shall not be a motor vehicle.”** This definition, however, sharply contrasts with the Forestry’s own Travel Management Rule, which defines a motor vehicle as "**any vehicle which is self-propelled**" under **36 CFR 212.1.** Since the National Forest Service is a federal agency, its regulations take precedence over state laws. Legislatively, this means that the Travel Management Rule has higher authority, and that any use of lands managed by the National Forest Service must comply with its policies. The Travel Management Rule supersedes the Wyoming Statutes, in other words. Given this context, if we take **36**

CFR 212.1 and strictly adhere to its literal interpretation of motor vehicles, then the restrictions we currently have in place are technically applicable to only Class 2. The precise language in **36 CFR 212.1** implies that motor vehicles must have the capability of propulsion without external human input. Class 2 clearly meets this definition - it is the only class capable of enabling self-propulsion due to their compatibility with throttles. This precise language leaves no room for additional interpretation. Consequently, Class 1 e-MTBs, which do not have throttles and cannot be modified to accept them, fall outside the scope of the Travel Management Rule definition. Therefore, they are not subjected to these restrictions, as they require human effort (pedaling) to initiate the motion, making them akin to regular mountain bikes. Given these clear definitions, there should be no further debate: Class 1 e-MTBs, without throttles and therefore without self-propulsion capabilities, should be allowed the same access as regular mountain bikes. The existing regulatory framework, as written in the Travel Management Rule, already supports this stance.

Mopeds and scooters represent the least powerful motorized vehicles under legal classification. They have specific requirements regarding engine size, power output, and top speed, all of which greatly surpass those of Class 1 e-Bikes. Unlike those motorized vehicles, Class 1 e-Bikes are equipped with pedal-assist mid-drive motors that allow them to function at speeds and power outputs that slightly exceed those of bicycles. This is precisely why the Department of Motor Vehicles does not categorize bicycle-style e-Bikes with these systems as motorized vehicles. Even when equipped with full-power pedal-assist mid-drives, e-MTBs produce power outputs comparable to those generated by athletes, further distinguishing them from fully motorized vehicles. The relatively low power of e-Bike drives, especially when compared to mopeds and scooters - the least powerful conveyances which can be legally classified as motorized - reinforces that they should not be lumped into the same category as motorcycles. The Forestry's decision to keep every bicycle-style e-Bike classified as motorized vehicles is a significant point of contention, particularly when every other federal agency has moved away from this classification. The National Forest Service is the last federal agency in the nation to continue to do so. I believe it's time for the Forest Service staff to reconsider their views and adopt a stance that is similar to that of the Department of the Interior, the Department of Motor Vehicles, and Consumer Product Safety Commission, recognizing that pedal-assisted e-Bikes align more with human-powered transportation than with the least powerful conveyances that can be legally classified as motorized; mopeds. In fact, the Department of Agriculture has already made a step in that direction. In March of 2022 this executive department approved the adoption of the 3-tier classification system, along with adding e-Bike-specific definitions to the Forest Service Manual. Thus, recognizing them as a distinct category rather than motor or motorized vehicles. It is the Forest Service's turn to put these changes in effect. At this very moment, it all boils down to ***you*** shifting your worldviews, and stop viewing e-Bikes as a "type of motor vehicle". The updated regulatory framework already supports it.

Studies have consistently indicated that the environmental impact of Class 1 e-Bikes on trails is minimal, closely resembling that of traditional bicycles with no substantial increase in soil erosion or trail degradation. Comprehensive research conducted by respectful organizations such as the International Mountain Bicycling Association (IMBA), PeopleForBikes, and Tahoe National Forest, has

found no significant difference in trail wear between Class 1 e-Bikes and conventional bicycles. These findings not only suggest that concerns about environmental damage and trail erosion associated with Class 1 e-Bikes have been exaggerated over the years, they also show that even the most beneficial technologies face resistance when they are not understood, or when their impacts are mischaracterized. Because pedal-assist e-Bikes require continuous human effort to operate, the noise and environmental footprint of Class 1 e-Bikes are substantially lower than those of fully motorized vehicles. This reduced environmental footprint is another crucial reason to differentiate Class 1 e-Bikes from motorized vehicles in both classification and policy. This evidence also counters the speculations and criticisms that often surround e-Bikes, demonstrating a commitment to providing accurate, evidence-based research grounded in scientific data rather than confidence born of ignorance. The meticulous efforts of these organizations to deliver detailed and factual research are commendable, as it provides clarity and dispels misconceptions surrounding the use of Class 1 e-Bikes on trails.

Motorcycle Trails and Comparison To Dirt Bikes

The Forestry's insistence on banning e-MTBs from single-track trails and forcing riders onto motorcycle tracks highlights a serious misunderstanding of how e-MTBs function. Sending e-MTBs onto motorcycle trails is dangerous, primarily due to the fundamental differences in the technology, structural design, and intended use of each vehicle. Different user groups often have different expectations. Dirt bike riders typically seek high-adrenaline experiences, while e-MTB riders look for quieter, nature oriented rides. Motorcycle trails are specifically designed to accommodate fully motorized machines that rely on continuous throttle engagement, where high torque and speed are essential throughout the entire ride, something that's entirely out of sync with the capabilities of modern day e-MTBs. The trail design mismatch further amplifies these dangers. Obstacles, jumps, and technical features are placed or built around the assumption that motorcycles will have the power and torque to overcome them. These trails are created with the expectation that the dirt bike riders who use a throttle to maintain constant momentum will be able to navigate steep climbs and technical features at speeds well beyond what an e-MTB is capable of. In contrast, e-MTB riders, even with pedal-assist, are far less equipped to handle such features, especially at low speeds where momentum becomes a challenge. This not only creates a trail environment that demands power, durability, and agility at high speeds, none of which align with the design principles of e-MTBs, but also increases the likelihood of accidents as e-MTB riders encounter trail conditions far beyond what their equipment is designed to handle.

e-MTBs are built around the principle of augmenting human effort, particularly for service roads climbs or non-motorized trails. The pedal-assist systems are specifically engineered to enhance the rider's ability to ascend, providing necessary support during uphill sections while still maintaining the human-powered element of the ride. Critically, pedal assistance no longer plays a role when the rider starts descending, meaning that e-MTBs become gravity-driven conveyances, just like mountain bikes. During descents, the main focus for e-MTB riders is on maintaining balance and

control as they gain momentum and navigate through the downhill sections - a stark contrast to the throttle-controlled power that motorcycles can apply at all times. This technological mismatch leaves e-MTBs severely underpowered for motorcycle trails and prone to drivetrain-related mechanical failures, be that chain, cog, or hub snapping. With only 565 to 600 watts of peak power output (equivalent to 3/4 to 4/5 of a horsepower), e-MTBs simply cannot match the continuous power output of motorcycles, which are easily capable of delivering over 50 horsepower. To put that number in perspective, dirt bike engines are 60 times more powerful than any high-end Class 1 e-MTB out on the market. To be clear, modern e-MTBs are impressive machines, well equipped for handling and withstand challenging terrain. They are built with robust materials and specialized components like carbon frames, durable suspension systems, powerful brakes, and rugged tires. However, these dedicated structural features are designed to excel on the downhill side of things, where gravity takes over and the bike shines in all its glorious performance. On steep and technical climbs designed for motorcycles, however, the uphill performance of an e-MTB is pale in comparison to its downhill capabilities. Attempting to climb features specifically designed for motorcycles poses a significant risk for e-MTB riders due to the lack of necessary power and torque to overcome technical ascents. Unlike motorcycles, which rely solely on continuous throttle and high torque to conquer steep inclines, e-MTBs are limited by their pedal-assist systems, which are intended to augment human effort rather than replace it. This creates a scenario where the combined weight of the rider and the e-MTB is insufficient to maintain traction on loose and steep terrain. As the rider struggles to pedal, the rear tire of the e-MTB is prone to losing grip and sliding, making it difficult - if not impossible - to maintain momentum on climbs that are easily handled by high power motorcycles. This loss of traction significantly increases the risk of falling on their backs as riders fight to control the bike under unsuitable and loose conditions.

When it comes to energy storage systems, the comparison between e-MTBs and Dirt Bikes in the context of wildfire risk takes on an even stronger dimension. Both vehicles rely on stored energy to operate - e-MTBs with their dedicated lithium-ion batteries, and Dirt Bikes with their gasoline tanks. If Dirt Bikes, which are powered by internal combustion engines that burn highly volatile liquids, were a significant wildfire concern, it stands to reason that the National Forest would have outright banned them. Yet despite the inherent fire risks associated with flammable fuels and hot exhaust systems, they are permitted on select trails and areas within the Forests across the country. It is commendable that Bridger-Teton National Forest themselves point out in the Draft Environmental Assessment that ***"numerous activities allowed on the forest have the potential to cause fires yet are still allowed, e.g., campfires, smoking, chainsaws."*** These established precedents demonstrate a practical approach to managing risk without stifling recreational opportunities.

Bad Policy Making: Policymakers responsible for developing these policies have likely neither ridden motorcycles to compare their operational characteristics with those of genuine Class 1 e-MTBs, nor have they ridden mountain bikes on trails and compared them under the same conditions. Without the understanding of how these bikes behave in real-world conditions, they fall back on categorizing them based solely on the existence of an electric component that has the word "motor" in it. This overly simplistic view ignores the nuance of e-MTB technology - how the assist works, how the bike

handles, and the primary role of human power in the overall experience. Lack of personal experience inevitably leads to policies that are out of touch with the realities of riding an e-MTB and fail to address the real needs of the riding community. How can people who lack firsthand knowledge and experience with e-MTBs be expected to craft policies that are logical and effective? The failure to grasp the operational characteristics of e-MTBs means that these policymakers do not fully understand the hybrid nature of these bikes - how they ride and the nuances involved in operating them. This misunderstanding leads to, and continues reinforcing policies that lump e-MTBs in with fully motorized vehicles, resulting in restrictions that make little to no sense in practice. Policymakers should try riding e-MTBs themselves or be willing to work closely with people who have direct experience in riding them. This firsthand understanding could reshape their perspectives and lead to more appropriate trail designation, and use restrictions that reflect the reality of e-MTBs as a hybrid vehicle, not simply “motorized.” Exposing yourself to diverse perspectives helps ensure that you don’t just know enough about an issue you think you’re right about, but also learn enough to recognize you might be wrong.

Reiterating the Arguments for Non-Motorized Classification and the Motorcycle Trails arguments in each other's context: The heart of the issue surrounding the integration of e-MTBs lies in the Forestry’s lack of understanding of this e-Bike sector, which is driven by an over-reliance on outdated vehicle classifications, and lack of firsthand experience. This disconnect is not entirely the fault of land managers, but rather a result of the terminology that suggests and frames e-MTBs within the broader spectrum of motorized vehicles. The word "motor" has become synonymous with "motorized" in the eyes of many. It's a mental shortcut that causes semantic confusion and closes the door to any meaningful reevaluation. By treating e-MTBs as simply “motorized vehicles,” the Forestry ignores the unique nature of these bikes and forces riders into inappropriate environments. This approach not only alienates e-MTB riders but also fails to leverage the growing appeal and accessibility of e-MTBs as a sustainable way to experience the trails. If the goal is to create policies that serve the diverse needs of trail users, then regulators need to get out and experience e-MTBs themselves - or at the very least, willing to engage with those who do. Without this insight, policies will remain disconnected from the realities of e-MTBs’ operation, and will continue frustrating both the riders and the land managers. At its core, e-MTB riding is a human-powered experience, enhanced by pedal-assist technology, but rooted in the same principles of physical effort, trail respect, and enjoyment of natural descents that define mountain biking. Unlike motorcycles, which rely on a throttle-driven power for navigating terrain, e-MTBs are designed to complement the rider’s energy - not replace it. The fundamental differences in how these machines are intended to interact with their respective environments make it clear that e-MTBs and motorcycles do not belong on the same trails. Therefore, considering their relative low power, true nature of their assistive technology, operational similarity to regular bicycles, minimal environmental impact, regulatory support from the Department of Interior, and Forestry’s own Travel Management Rule wording, Class 1 e-Bikes should be recognized as non-motorized vehicles. This recognition would align with the existing standards set by regulatory bodies such as Consumer Product Safety Commission and Department of Motor Vehicles, allowing for a seamless integration of e-MTBs into the non-motorized trail systems without the drawbacks associated with fully motorized vehicles.

Tamper Mods and Similarities to Class 3

This entire topic is in response to this statement in the DEA: "*In addition to multiple-mode e-Bikes, online research shows the ease in which a rider can remove speed restrictions on any class of e-Bike. These e-Bike modifications have millions of views and are cheap and easy to perform. Since these modifications can be performed without changing the visual appearance of the bike itself, they could be difficult to identify and enforce.*" - quote taken from the **"Law Enforcement"** topic**, "Difficulty with Allowing only Class 1 E-Bikes due to Non-Conformance and Modifications"** subtopic.

I would like to share my thoughts regarding modifications that tamper with the integrity and speed limitations of e-Bikes, which are specifically targeted towards Class 1. While it is true that such mods exist, I want to clarify that these devices do not increase the power output of the mid-drive systems, as power output is regulated by their own motherboards, independent of the controller on the frame. Mods are also incapable of unlocking Class 2 capabilities, such as throttle assistance. Self-propulsion as a feature was never developed for mid-drive systems intended for the pedal-assisted market. Having no throttle processing logic hardware, firmware, and software levels, no dedicated throttle input ports or solder point, wiring a throttle in would also be impossible. Therefore, no 3rd party code can interfere with the mid-drive motherboard firmware and enable features that were never there to begin with. These mods serve no purpose other than intercepting the speed value coming from the speed sensor attached to the rear wheel, and reporting a lower value to the main controller, thereby tricking it into thinking the bike is moving slower than it actually is. While I do not want to be dismissive or downplay these actions, their impact, I believe, is overstated and exaggerated. I am confident it is possible for me to present diplomatic arguments and reasons why I think modded e-Bikes, which become similar to Class 3 in terms of operational characteristics, would not cause significant problems on the trails.

Class 1 and Class 3 e-Bikes are built around pedal-assist technology, meaning they both employ mid-drive systems instead of hub-motors. The key distinction between the two lies in the speed at which assistance ceases: Class 1 e-Bikes provide support up to 20 mph, while Class 3 models extend that limit to 28 mph. In essence, a Class 3 e-Bike is not a radically different machine in terms of operational characteristics. It's rather an enhanced version of a Class 1, offering an additional 8 mph of assisted speed. Despite the fact that Class 1 and Class 3 are mid-drive based conveyances, their systems are ***NOT*** interchangeable. You can't simply swap a speed-oriented motor into a frame designed to hold and operate a Class 1 mid-drive system. Without diving into the complexities of software and firmware engineering, there are multiple technical and physical compatibility challenges associated with such attempts that would simply not allow the bike to function. One, and perhaps the most critical challenge is the hardware itself. The size, the shape, and the mounting configuration of Class 3 mid-drive units differ from those of Class 1. Provided someone managed to source a Class 3 mid-drive unit from a donor bike, and were willing to sacrifice a perfectly functional frame intended for securing a Class 1 system and mangle its bottom bracket just to force fit that non-compliant drive unit in, powering it would be the next challenge. Aside from the fact that the original bike's battery connector would likely be mismatched, which would require sourcing and

retrofitting a proprietary battery plug, both the main controller on the frame and the onboard battery management system would also refuse to work with an unauthorized component. Once you bump into the proprietary firmware and software barriers, any further attempts are rendered futile. After all, that's how tamper mods came to exist; it's because people discovered that by exploiting the unencrypted communication protocol between the speed sensor and the main controller was a much more practical solution to their desired outcome.

Class 3 e-Bikes are often misunderstood as being inherently more powerful than Class 1. They are not. As noted earlier, the next class is not a step up from the previous class. On paper, all classes are equally limited to one and the same numerical value; 750 Watts. In reality, however, if you recall from a few chapters back, mid-drive units for the classified market today do not exceed 600 Watts. Aside from the numerical value of speed at which they provide pedal assistance, the classification does not represent a progression in power. Class 3 e-Bikes in many cases are actually underpowered when compared to full-power Class 1 models. Think of this in terms of a comparison between a sports car and an offroad Ford F-150: while the sports car may have less horsepower, it can achieve higher speeds, whereas the F-150 has greater power and torque but is not designed to reach the same speeds. This analogy applies well to the difference between Class 1 and Class 3 e-Bikes. Class 3 e-Bikes are designed and optimized for higher-speed assistance, reaching up to 28 mph on flat pavement, while Class 1 e-Bikes provide assistance only up to 20 mph. However, on rugged terrain, much like the F-150 excelling off-road, a full-power Class 1 e-MTB will outperform light Class 3 Electric Road Bike on steep climbs, rough trails, and technical features. Achieving the maximum 28 mph speed on a Class 3 e-bike is usually limited to smooth, even surfaces under ideal conditions. Such conditions are rarely found on trails in the Jackson area, where sharp turns, steep inclines, and diverse terrain would drastically limit the speed of any bike, regardless of its classification. On these trails, neither Class 1 nor Class 3 e-Bikes can consistently reach their maximum speeds. The nature and varying terrain of these trails make such speeds unattainable.

Most Class 3 e-Bikes are designed for road riding and often lack the robust suspension systems found on mountain bikes. On rough terrain, the absence of proper suspension makes these bikes uncomfortable and difficult to handle at high speeds. Riders are likely to naturally slow down to maintain control and stability, aligning their speeds with those of Class 1 e-MTBs. On uneven and rocky trails, the higher speeds facilitated by Class 3 e-Bikes can lead to operational instability. The bumps and obstacles on these trails can cause significant jolts, making it challenging to maintain a straight line or control the bike at higher speeds. This inherent instability discourages riders from attempting to ride faster, further mitigating any potential speed-related concerns. Hate to break it to you this way, but riders are generally cautious about their own safety. The knowledge that higher speeds on rough trails lead to increased fatigue and decreased control naturally encourages more careful riding. Riders are more likely to prioritize maintaining control and stability over exploiting the higher speed potential of modded e-Bikes.

During downhill sections, e-MTB riders can easily reach high speeds using gravity and momentum alone, just like mountain bikers do. These speeds, however, are independent of the bike's pedal-assist capabilities. For e-MTBs, the mid-drive assistance remains in standby mode for the duration of the

descent, as riders focus on handling and controlling the bike rather than pedaling. Therefore, the operational characteristics of modded e-Bikes would be irrelevant during these sections. The pedal assistance in both Class 1 and Class 3 e-Bikes primarily supports uphill climbs and sections where pedaling effort is needed. On technical trails, where riders often face obstacles, turns, and uneven terrain, the assistance helps maintain steady and controlled speeds rather than achieving high speeds. This function remains consistent between Class 1 and Class 3 e-Bikes, further minimizing differences in their operational impact on trails. The technical nature of these trails naturally limits the speed, making the higher assistance speed of modded e-Bikes irrelevant in such conditions. As a result, the practical difference in speed between Class 1 and modded e-Bikes becomes negligible.

The absence of Class 3 e-MTBs on the market is a clear indication that there is a lack of practical application for them. Mountain biking enthusiasts and professionals recognize that the benefits of higher speeds provided by Class 3 e-Bikes are irrelevant in the context of trail riding. Pedaling an e-Bike at 28 mph on technical trails would be extremely difficult due to the balance shifts that occur with each pedal stroke. These left-and-right shifts in balance would be further exacerbated by the uneven terrain, making it practically impossible to control. The technical demands of mountain biking would simply not support the use of such speeds. This natural limitation further aligns the operational characteristics of modded e-Bikes with those of Class 1. Additionally, all current Class 1 e-MTBs on the market come equipped with small chainrings optimized for climbing efficiency and technical riding rather than achieving high speeds. To approach 28 mph on a flat surface (assuming the bike is modded) a rider would need to pedal the bike in its second highest gear. Anyone with a solid understanding of physics and mechanics will attest that pedaling in this gear already places tremendous stress on the drivetrain. And with the additional torque provided by the mid-drive unit, each degree of incline would significantly increase the risk of mechanical failure, such as chain or cog snapping. It would be just as strenuous as driving your car up the Teton pass in its 6th gear. You wouldn't do that to your transmission, would you? The added challenge of maintaining balance while pedaling at near maximum cadence of 120 RPM, makes it clear why this is unachievable on uneven and inclined terrain. This is another reason why dedicated Class 3 e-MTBs do not exist and no mountain bike brand is known to be developing any. There simply isn't enough opportunity for such bikes to utilize their potential speeds effectively in the realm of mountain biking.

To clear up this misconception once and for all, let me break down the math for you and prove that achieving such speeds on a modded Class 1 e-Bike - or a Class 3 for that matter - is utterly impossible. Let's assume the following: an average rider weight of 180 lbs, on a 52 lb e-MTB with 29-inch wheels, 2.5-inch tire width, 21 PSI in the front and 23 PSI in the rear, a 34-tooth chainring, and a 12-tooth rear cog. According to the calculations, to overcome the gravitational force, drag, air resistance, and rolling resistance, and maintain 28 mph on a hard-packed 10-degree slope, the rider would need a staggering 3040 Watts of power - that’s over 4 horsepower! To put that number in perspective, that's the combined peak output of **5** Class 1 mid-drive systems operating simultaneously. Even the most powerful unclassified bicycle-style e-Bike currently out on the market - one that’s heavily rumored to be classified as Class 4 in the future - which is rated at 1800 Watts of peak power, couldn’t come close to accelerating and maintaining that speed under these conditions. For the sole purpose of

comparison, let's apply that math to a genuine Class 1 e-MTB, which is capped at 600 Watts of power, 95 Nm of torque and 120 RPM cadence. With identical conditions in play, this bike could only achieve a top speed of around 11 mph on the same slope - nearly not enough to even hit the 20 mph limit of Class 1. This calculation by the way is equally applicable to other rear cog combinations. Gear ratios impact how efficiently the mid-drive unit can transfer power to the rear wheel, so shifting to a larger cog for better power transfer and leverage ease will only help alleviate the stress off of the drivetrain. The 95 Nm of torque won't increase the speed beyond what the mid-drive unit can sustain with its power output. You'd be hitting power headroom way before you'd hit speed headroom. The 600 Watt power limit remains the main limiting factor for speed on an inclined terrain, especially when its operational limit is a cadence of 120 RPM. If anyone still thinks a modded Class 1 e-MTB can fly up Snow King at 28 mph, you are sorely mistaken. It wouldn't even be able to climb up the paved section of the Old Pass Road at speeds over 20, let alone sustain 28. This is not just improbable - it's laughably impossible. Anyone claiming otherwise is simply out of touch with reality.

The arguments above are equally applicable to the **Specialized Turbo Tero X** e-Bike referenced in the Appendix B: Comparison of e-Bike Types, under Class 3. This is indeed a Class 3 e-Bike. However, among enthusiasts, this model is barely regarded as an e-MTB. The geometry of the Turbo Tero X is suited for trekking and cross-country riding rather than mountain biking disciplines such as freeriding, downhill, or jumping. Its relatively short suspension travel prioritizes nimbleness over the brute-force capability necessary for tackling rough terrain, which Teton Pass is very well known for. In fact, the owner's manual explicitly states that this model is intended and tested for "General Purpose Riding" only, underscoring its focus on smoother and more predictable surfaces. The bike's urban-oriented design further sets it apart from Class 1 e-MTBs. It comes equipped with features like front and rear splash fenders, integrated lights, and other trekking-style accessories - none of which are typical on genuine e-MTBs designed for challenging terrain. These additions reinforce its identity as a bike optimized for mixed urban and light off-road use, rather than rugged trail performance. Its design and specifications make it a capable tool for commuters and recreational riders who enjoy light off-road adventures, but its characteristics fall short of what's required to meet the rigorous demands of mountain biking trails.

While it's undeniably possible to use this bike on trails, this model is also not representative of what e-MTB enthusiasts would be looking for. This bike would also not be able to reach its 28 mph speed limit, just as I explained in the paragraphs above. Mechanical limitations, winding nature of trails, relatively steep inclines, and unpredictable conditions of trail environments in the Jackson area leave no room for this bike to achieve its full speed potential. Even if someone used it on the trails, it wouldn't inflict any more damage to the trails than me using my compliant Class 1 e-MTB. This bike shares the same mid-drive unit as my Specialized Turbo Levo, meaning its technical limitations are identical to the ones I've described in the paragraphs above. The only difference in specs is that while the speed of mine is limited to 20, Tero X is limited to 28. And just as I wouldn't be able to achieve 20 mph inclined terrain, neither would the Tero X. Our 565 Watt mid-drive motors are, simply put, incapable of assisting to that speed under those challenging circumstances, let alone sustaining them throughout the length of the ride up.

- But Ian, if people resort to using mods to increase the speed limit, isn't that an indication that there is demand for such capabilities? That's a valid point. The fact that some individuals go to the extent of modifying their Class 1 e-Bikes, voiding their warranties and risking non-compliance with current regulations, may indeed suggest that there is demand for higher-speed capabilities in the e-MTB industry. However, this demand stems from specific use cases where riders who are displaced by the current regulatory framework, seek alternative riding environments. For instance, National Forest holds the majority of single-track trails in the United States, most of which are inaccessible to e-MTB riders. As a result, riders turn to more manageable terrain, such as off-roads outside the forest or paved paths in National Parks, where higher speeds might be more desirable. These modifications are catering to a specific group of people rather than reflecting a widespread demand. While some riders may desire more speed, the broader market is not yet ready to support the development and sales of dedicated Class 3 e-MTBs. Any attempt to introduce new variables, such as expanding access for other classes, could undermine nearly a decade's worth of effort to secure the initial foothold for Class 1 e-Bikes. The trust and relationships built between advocates and land managers could be jeopardized, potentially blowing apart the hard-earned accessibility progress. Given this context, please understand that I am ***NOT*** advocating for allowing Class 3 e-Bikes on trails, nor do I commend actions that tamper with speed limiters. My point is that the practical use for these e-Bikes is highlighted on paved roads and paths, where higher speeds can be safely achieved and maintained. On single-track trails, these advantages are negated by the challenging terrain, making the operational characteristics of Class 3 or modded e-Bikes similar to those of Class 1. There is simply no bandwidth for Class 3 or modded e-Bikes to accelerate to those speeds, let alone maintain them.

It won't be long until exploitation is eventually patched up. Major industry players have partnered with cyber safety firms and work closely on solutions to prevent tampering with speed limiters, focusing on introducing encrypted communication protocols between the speed sensor, mid-drive unit motherboard and main controller. Bosch, in fact, is the first brand so far that has already rolled out updates containing tamper-resistant technologies for their new "Smart System" line of products, in which their entire e-MTB ecosystem is communicating using encrypted protocols, including the dedicated speed sensors. Similar cryptographic methods for communication, which are yet to make their way into Brose, Shimano and Yamaha products, are striving to make the use of unauthorized third-party devices and service tools impossible to intercept and alter data, ensuring that e-MTBs equipped with those systems remain compliant with existing regulations. e-MTB manufacturers continue to refine these measures, and we can expect encrypted communication protocols and anti-tampering features to become standard in future generations of products.

The argument against proceeding with this proposition due to the potential for bike modifications and use of other classes is flawed. The latter is already happening today, regardless of existing restrictions and penalties of $5000 or 6 months in prison. Restrictions do not deter those intent on breaking the law. If someone is determined to take their e-Bikes out and ride them in the forest, whether the e-Bikes are modified or not, nothing stops them from doing so. Let's not pretend restrictions are an impenetrable shield - they aren't. If these restrictions fail to deter illegal riding with 100% certainty, then introducing new alternatives under this updated proposition would also

unlikely to be more effective against them. Having e-MTBs allowed in select areas scattered around the valley while keeping them prohibited in areas where people actually want to ride, would only reinforce a sense of defiance and encourage lawbreakers to continue poaching the trails. Why would they seek approval or Forestry's blessing when they see the system is flawed to begin with? The reality is that trail poaching is always a choice, one that others have made and will continue to make. To someone who already disregards the rules, that would be just another arbitrary line to ignore. Which is why I believe the most effective solution to manage Class 1 e-MTBs on trails is to allow them everywhere where regular mountain bikes are permitted.

All of the above leads to this crucial question: If existing regulations are ineffective in preventing 100% of illegal activities, why not proceed with this proposition and approve it for the benefit of those who wish to abide by the rules? Approving the proposition would support responsible riders who want to enjoy their compliant e-Bikes within the legal framework, providing them with a clear and lawful path to do so, rather than penalizing them based on the actions of a few lawbreakers that do not reflect the behavior and intentions of the majority. As stewards of the public lands, your mission would be creating and sustaining a functional system that benefits those who respect the established laws and guidelines. Just as The Department of Transportation is not directly held accountable for the actions of drunk and unlicensed drivers, the Forest Service cannot and should not bear direct responsibility for the actions of individuals misusing these opportunities. Concerns about misuse undeniably merit consideration. However, they should never be the sole reason to paralyze the progression of this promising proposition. In any given year, society is robbed of far more often using crowbars and bolt cutters, and yet they are sold in every single hardware store. The mere fact that a tool can be used by evil doers should not be a cause for banning it. If fear of misuse was to stifle every new idea, progress would have come to a standstill and humanity would still be living in a cave, not knowing where the sun goes at night. It is through facing challenges that come with hints of the unknown that society learns and continues moving forward with confidence.

E-Bikes referenced in the Draft Environmental Assessment (DEA)

Regarding the selection of images in this analysis, there are multiple errors and misrepresentations that, in my view, significantly diminish its credibility. As a passionate advocate for e-MTB use, I can identify key flaws in the examples presented, and expose inconsistencies that mislead policymakers. My familiarity with e-MTB classifications, industry trends, and real-world applications enables me to discern these e-Bikes at a glance, and bring a well-informed perspective into this discussion.

Errors in the "Appendix B: Comparison of E-Bike Types"

Error #1: Frey DOP 2.0

The inclusion of the Frey DOP 2.0 in the Appendix B is incorrect, as it is not a Class 2 e-Bike. Instead, it is multi-mode. This bike allows both throttle operation and speeds of up to 28 mph - an outright

exploitation of the language flexibility in the 3-tier system. While it may exploit loopholes in the classification framework by marketing itself across multiple classes (it's a gray area rather than outright illegal), the fundamental issue lies in its operations characteristics. Frey's strategy involves programming their controllers such that they enable throttle assistance up to 20 mph (to technically fit within Class 2 requirements) while simultaneously allowing pedal-assist to reach 28 mph (to align with the requirements of Class 3). This dual functionality unequivocally blurs the lines between classes, and undermines the integrity and intent of the classification system itself.

A significant enabler of this approach is the use of Bafang motors, which - a choice that reflects their priorities but one that larger, more reputable mountain bike brands deliberately avoid. It diverges from the core principles of the e-MTB industry, which is focused on effort-driven engagement, and pedal-assist enhancement. Unlike the systems utilized by established mountain bike brands, Bafang motors are often associated with unrestricted configurations. The presence of a throttle is also what compromises the integrity of the e-Mountain Biking sport, aligning it more with a motorized activity. The throttle-centric design shifts the focus away from pedal-driven effort, which is the core of mountain biking culture. It's worth noting that Frey exclusively produces off-road e-Bikes and does not offer traditional bicycles. This absence speaks volumes about the company's lack of connection to the mountain biking heritage, which is deeply rooted in effort and endurance. Without a foundation in these principles, their designs fail to embody the ethos of mountain biking. Companies without this foundational understanding are often perceived as opportunistic, attempting to capitalize on the e-MTB market without contributing to the preservation of its principles. In contrast, the e-MTB industry is led by respected mountain bike brands that have pioneered Class 1 e-MTBs. These brands remain steadfast in their commitment to preserving the spirit of mountain biking by prioritizing pedal-assist innovation and rejecting throttles. Advocacy groups consisting of mountain bike enthusiasts protect this ethos, viewing throttle-based systems as antithetical to the spirit of Class 1 e-MTBs and emphasizing that the pedal-assist feature is essential to maintaining the sport's authenticity. Which is why large brands like Trek, Pivot, Giant, Transition, Cannondale, Santa Cruz, Canyon, and Specialized - brands that only produce Class 1 e-MTBs - do not partner with Bafang.

To be fair, this particular model by far is the only one to achieve some design successes. Its frame geometry, for example, aligns surprisingly well with that of genuine Class 1 e-MTBs. However, this alignment in form is overshadowed by a fundamental failure to embrace the sport's core values of effort, engagement, and pedal-driven progress. The throttle option undermines the very principles that e-MTBs strive to preserve, positioning the bike as an outlier in a market that increasingly values the integrity of Class 1 e-MTBs. If this model employed a Bosch, Shimano or a Brose system, honestly, it would have been a worthy contender. And to solidify a previous argument I have made in the Tamper Mods topic; Mid-drive systems are ***NOT*** interchangeable. It is not possible to replace the Bafang motor with a system from a compliant manufacturer such as Bosch, Shimano or Brose, to make it a Class 1 e-Bike. So, attempting to correct what Frey has fundamentally failed at would still not work, even if the tools for the job were readily available.

While the Frey e-Bike exists as an option in the broader marketplace, it does so outside the framework of the cultural and technical standards that define e-Mountain Biking. Because of that,

Frey faces significant hurdles in gaining traction among discerning buyers. Their bikes are also not carried by mainstream retailers, meaning potential customers must rely solely on marketing materials or third-party reviews to decide whether or not to commit. Conversely, larger mountain bike brands that manufacture compliant e-MTBs, are widely available in the store where people can touch and feel them. No amount of scrolling and zooming can replicate the visceral experience of trying out things in person. This lack of accessibility, paired with lack of trust from enthusiasts, further diminishes their appeal, especially when compared to the established brands that dominate the industry with a focus on cultural alignment with mountain biking - a discipline that celebrates effort and endurance. Ultimately, while the Frey e-Bike is an option in the market, it fails to resonate with the principles and priorities that define e-MTBs. In a market dominated by well-established brands that have built their legacy on innovation, rider engagement, and community-driven values, bikes like Frey's will always remain a step behind.

Error #2: Luna X2 Enduro

The Luna X2 Enduro is not Class 2 - it's a multi-mode e-Bike. Despite the brand's claim that it is a "Class 2 Pedelec," this is incorrect. The term "Pedelec" specifically refers to electric bicycles where the motor provides assistance only when the rider is pedaling and ceases operation once a designated speed limit is reached - typically 20 mph. In the U.S., these are legally classified as Class 1 e-Bikes. A variation, known as the Speed Pedelec, operates under the same pedal-assist principle but with a higher speed limit, usually up to 28 mph, making it a Class 3 e-Bike. Crucially, in both cases, the motor cannot function independently of pedaling. Thus, a Pedelec - by definition - can only be Class 1 or Class 3.

It is misleading for any brand to market an e-Bike as a "Class 2 Pedelec" because Class 2 e-Bikes, by law, include a throttle that enables motorized propulsion without pedaling - directly contradicting the core definition of a Pedelec. Class 2 and Pedelecs are 2 pieces of a puzzle that do not fit together. Luna's argument for this classification likely stems from the fact that its Bafang M600 motor is capable of pedal assistance, giving them a superficial pretext to apply the Pedelec label. However, this classification is nothing more than a manufactured marketing construct, existing solely on their website with no legal basis. It is a deliberate attempt to craft an illusion of compliance while sidestepping regulatory accuracy.

More concerning is the company's willingness to offer motor upgrades and controller modifications - such as the proprietary Ludicrous V2 Controller - which enable significant increases in power output and speed. While this modification provides only a temporary power boost, Luna claims it can peak at 3000 Watts - that's 4 horsepower. This directly undermines their own fabricated "Class 2 Pedelec" label, revealing it as nothing but a Shadow Compliance tactic. They are effectively marketing their products to appear compliant on the surface, only to later offer them aftermarket modifications - unrestricted performance capabilities for buyers who seek them. This kind of marketing strategy caters to those willing to break the rules, which runs counter to the responsible e-MTB advocacy efforts I and many others support.

A further example from Luna's lineup is the Z1 Enduro, referenced in Figure 7. This is not a Class 2 e-Bike either - it is an unclassified vehicle. The reason? It is equipped with a Bafang M620 mid-drive motor, which, by default, delivers up to 1300 watts of power. This specification alone disqualifies it from being assigned any of the 3 legally recognized e-Bike classifications in the U.S. Furthermore, because its power output exceeds 1 horsepower and its potential speed capabilities extend beyond regulated limits, it cannot legally be categorized as a Pedelec under any existing framework.

Technically, the Z1 Enduro cannot even be sold legally in the U.S. unless it adheres to state and federal motor vehicle laws. The only reason it remains on the market is because it's marketed as an "off-road" vehicle - an intentionally vague designation used to circumvent regulatory enforcement. This example also highlights why the idea of a hypothetical "Class 4 e-Bike" is fundamentally unworkable within the current classification system. Vehicles greatly exceeding 1 horsepower and higher speed thresholds are already subject to separate, stricter regulations, making any attempt to squeeze them into the e-Bike framework legally and practically impossible.

Simply put, neither of these bikes - nor any similarly marketed models - can be legally classified as bicycles, or accurately labeled as e-MTBs. These are off-road vehicles for "private property use only". That is the only way these bikes are allowed to exist. At its heart, an authentic e-MTB is about enhancing the ride, not overpowering it. It was never intended to be a high-wattage missile designed to obliterate climbs and inflate egos. I'm not even exaggerating. Luna openly brags about this particular model ***"being able to smoke any other $8000 OEM 250 Watt spec'd bike up a hill".*** That mindset belongs to those who seek dominance rather than skill - individuals who mistake brute force for ability. It seems like these opportunistic manufacturers understand their audience very well. They engineer products that technically skirt legal thresholds by detuning their output just enough to comply - only to make it effortless for their clients to restore full power with a few simple presses of a button. This is common with direct-to-consumer brands that don't have a physical retail presence. Since there's no central enforcement mechanism inspecting every model in the market, they can get away with it. It's a deliberate exploitation of the system, catering to those who claw for power rather than the true spirit of the ride. Unable to command respect through genuine prowess, they cling to the illusion of superiority that their unrestricted machine provides, wielding it as a cudgel to impose themselves on others. Luna is a brand that markets excessive power as a ***"priceless"*** advantage over compliant OEMs, they surely know what kind of people to capitalize upon.

Error #3: MonkWheel Obsidian

The MonkWheel Obsidian is not a Class 3 e-Bike - it is unclassified. Aside from the fact that it also blatantly exploits the 3-tier classification system by enabling both throttle activation and a 28 mph top speed simultaneously - a combination not directly permitted under any legal bicycle-style e-Bike category - the definitive factor disqualifying this bike from classification is its motor, which peaks at 1300 Watts. Under U.S. federal consumer law, no e-Bike within the established 3-class system is permitted to exceed 750 Watts - anything beyond that threshold is no longer legally recognized as a

“bicycle.” Speed alone does not determine an e-Bike’s classification; multiple criteria must be met, including power output and throttle presence, all of which must remain within the strict limitations defined by the 3-tier system. While the classification framework does not explicitly forbid borrowing operational characteristics from one class and applying them to another, lesser-known companies routinely exploit this regulatory ambiguity - manipulating the language to straddle multiple classifications. However, in this case, even that loophole does not apply. The MonkWheel Obsidian exceeds a key legal boundary - power output - making it unclassified.

What brands like MonkWheel also do beyond disregarding classification rules, is strategically manipulate language to craft the illusion of compliance. A common tactic involves selectively applying elements of a specific e-Bike class to the product description to create a misleading perception of legality. For example, these generic manufacturers often state “Top Speed: 28 mph” which, on the surface, suggests compliance with Class 3 regulations. To the average buyer, this signals legitimacy - after all, 28 mph is the designated limit for Class 3 e-Bikes. However, that framing deliberately omits the most crucial factor: power output. If the motor exceeds 750 Watts, the bike is unclassified, regardless of its speed capability. Whether the bike actually reaches 28 mph is irrelevant in that context - the moment it surpasses the 750 Watt threshold, it ceases to qualify under the 3-tier system. What remains is an illusion of compliance, achieved through selective wording and incomplete disclosures, which sadly is passed to the average consumer to interpret it in their own ways. It’s a textbook case of regulatory manipulation for advantage, and while such brands are entitled to conduct business as they see fit, I cannot, in good conscience, support such practices.

Misrepresentations in the “Appendix B: Comparison of E-Bike Types”

Misrepresentation #1: Biktrix Monte Capro Ultra 2 Boost

This e-Bike is indeed unclassified. In fact, everything I said about Lunas’ **Z1 Enduro** e-Bike - referenced in the DEA under Figure 7 - is equally applicable to this model as well. The reason lies in its mid-drive motor - Bafang M620 - which, by default, is capable of delivering 1300 Watts of power. While Biktrix markets this particular model as having a 1000 Watt motor, that specification is somewhat misleading. Let’s not overlook that the bike operates within Bafang’s modular ecosystem, meaning that with minimal adjustments, the end user can easily restore its output to 1300 Watts. A simple battery upgrade from the standard 48V to 52V pushes that power even further, enabling up to 1500 Watts. The motor’s controller is inherently designed to accommodate higher voltages, making these modifications not just possible, but effortless. Frey, for example, also employs this particular motor for some of their models. They’ve developed custom controllers for this motor and have taken power output even further. When paired with a 60V battery, peak output can reach 1800 Watts. The Frey BEAST is a prime example of such a setup - another unclassified e-Bike that is not referenced in the DEA.

This yet again brings us to the core issue: bikes like these are fundamentally misrepresented in discussions about Class 1 accessibility. They do not reflect what the e-Mountain Biking community values, nor do they align with ongoing advocacy efforts. Unlike high-powered, throttle-heavy electric off-road bikes, e-MTBs evolved directly from the mountain biking scene, prioritizing efficiency on climbs while preserving the same technical and dynamic experience of descending. The essence of this sport has never been about sheer power output - it has always been about maintaining the integrity of mountain biking with a subtle boost to enhance the ride, not redefine it.

In stark contrast, these lesser-known brands seem locked in a race to pack the most powerful motor into an e-Bike, as if wattage alone defines performance. Their marketing leans heavily on raw numbers - bigger motors, higher voltages, 4 digit peak outputs - as though these values are trophies for riders who view power as a status symbol rather than a functional component. The e-MTB industry, which derived from the mountain biking scene, has never had a goal to create a high-wattage cycle designed to fly up climbs and smoke everyone up. Yet, these lesser-known brands popping up continue to capitalize on excess, catering to people who equate bigger numbers with better bikes, all while failing to recognize that responsible e-MTB development has never been about brute force. This is not the spirit of e-Mountain Biking.

While the DEA acknowledges the fact that these machines ***"may not be sold locally"***, and that ***"they are readily available online and in larger cities, thus out-of-town visitors could easily bring these newer models to the local trails"***, it's equally important to consider the actual market landscape. The sales figures for these high-powered, unclassified e-Bikes are a fraction of what legally classified models generate. Across the country, these lesser-known brands have very limited presence, with each typically having around ten distributors nationwide. In contrast, a wide array of Class 1 e-Bikes, including e-MTBs, which adhere to legal classifications and regulations, are readily available for purchase and rental in every bike shop in the valley. So, while some models from these lesser-known brands are able to ***"smoke any other $8000 OEM bike up a hill"*** they are the ones eating dust when it comes to market share. Given this reality, the likelihood of visitors arriving with these unrestricted e-Bikes is exceedingly low. Even then, this is not an excuse for barring local individuals who are committed to responsibly using these opportunities.

Misrepresentation #3: Magnum Vertex

While this e-Bike was correctly identified as multi-mode, it is still misrepresented in the context of this discussion and advocacy efforts. The last arguments I have presented for the **Biktrix Monte Capro Ultra 2 e-Bike,** are equally applicable to this model as well. This is a simple and affordable off-road vehicle. It is not a trail oriented e-Bike by any means.

Misrepresentation #2: Bulls E-Stream Evo 45 AM

The Bulls E-Stream Evo 45 AM - identified as Class 3 in Figure 8 - is no longer an option in the market. Bulls discontinued this model in 2019 to align with the industry trends prioritizing Class 1. Today, Bulls' entire e-MTB catalog consists exclusively of Class 1 models, and that stance is unlikely to change. While Bulls may not command the same name recognition in the U.S. as other established mountain bike brands, their approach aligns with industry norms - equipping their bikes with compliant drive systems from Bosch.

To suggest that the presence of a long-discontinued Class 3 model holds any meaningful weight in discussions about modern e-MTB use is a stretch. Even if one of these rare machines surfaced on the marketplace, it would hold little appeal to the typical e-MTB rider. I mean, the Evo 45 AM wasn't a game-changer to begin with. Its mid-drive motor produced less torque and peak power output than pretty much any of today's full-power Class 1 e-MTB systems. The theoretical 28 mph speed limit applied only to smooth, ideal conditions - certainly not to steep, technical trails where torque and efficiency matter far more than an arbitrary speed cap. Riders seeking higher speeds would find it more practical to modify a new Class 1 e-MTB rather than hunting down this relic.

The fear that out of state visitors could bring this particular model in is unwarranted. I would like to remind everyone that the restriction barring e-Bikes from the trails today does nothing to prevent those intent on breaking the rules and riding unrestricted and overpowered e-Bikes akin to all of those referenced in the DEA. If e-Bike posed such a significant threat, it stands to reason there would be armed forces at each trailhead fiercely protecting the trails, ready to fire upon any rider who attempted to violate this sacred rule, ensuring with 100% certainty that no misuse ever occurred. Since there is no such squad guarding the trails, and the world in the eyes of the Forest Service has not collapsed under the weight of its own failure to protect against those known to have broken this rule, it's reasonable to conclude that the hypothetical Class 3 rider appearing on a trail is simply not a significant concern. The occasional Class 3 rider who might find himself on the trails, and the hypothetical unrestricted e-Bike rider who could already do so today, is an acceptable threshold.

In practical trail-riding scenarios, a Class 3 model could sustain no more higher speeds than a modern Class 1 e-MTB, meaning its impact on trails would be functionally identical. The notion that a Class 3 model would create some uniquely destructive force on singletrack is baseless. Just like I have explained in the Tamper Mods topic, a 600 Watt mid-drive motor simply lacks the capability to assist a rider to such speeds under challenging conditions, let alone maintain them throughout an extended climb.

In short, the Evo 45 AM's inclusion in this discussion suggests a lack of current industry awareness, which is irrelevant to the present-day e-MTB landscape. It misrepresents the present-day market and fails to acknowledge the reality that Class 1 has become the standard for legitimate e-MTB use.

Misrepresentation #4: Optibike RIOT Class 1 e-MTB

While I fully support the responsible use of Class 1 e-Bikes, I want to emphasize that my advocacy does not extend to so-called "hand-built-to-order" products. These custom-built models deviate significantly from established industry standards. They typically incorporate originally overpowered components, such as motors and batteries designed for higher output, which are then digitally modified to meet the nominal requirements for Class 1 classification. While these products are likely certified and safe to operate, the inclusion of digitally altered components with artificially reduced capabilities undermines the principle of responsible and thoughtful design. Unlike those products, genuine e-MTB are purpose built not to exceed the regulatory power limits from the very beginning, not simply on firmware level, but also mechanically. Respectable mountain bike manufacturers who also produce e-MTBs do not use cut down components to meet specifications. This practice only erodes the integrity of the Class 1 designation, and risks compromising regulatory compliance and the long-term sustainability of e-Bike access. Such products exploit technical loopholes rather than adhering to the true principles of responsible design and use, blurring the lines of classification and weakening trust within the e-Bike community.

All of the above leads to this point: The **RIOT** Class 1 e-MTB by Optibike referenced in Appendix B, under Class 1 dangerously blurs the line between an electric mountain bike and an e-moto. While Optibike claims that the **RIOT** meets all Class 1 requirements, a closer examination reveals that it bears little resemblance to what an e-MTB rider would reasonably expect to take on forest trails. More concerningly, when compared to Optibike's other models - the R17T, R22T, and R22ET, which are unclassified e-Bikes - it becomes evident that the **RIOT** is built on fundamentally the same platform as these high-powered machines, which are far outside the bounds of any e-Bike classification.

The R17T, R22T, and R22ET do not meet any of the necessary specifications to be classified under any existing e-Bike category, despite the bold **"NEW Pedelec Torque Sensor"** label. These models are equipped with a 1700-watt peak power motor - equivalent to over 2 horsepower - and can reach speeds of 36 mph, which far exceeds even the limits set for Class 3 e-Bikes. This directly supports my previous assertion that certain manufacturers take originally overpowered components - such as motors and batteries designed for much higher output - and artificially restrict them through digital means to superficially align with Class 1 requirements. A key piece of evidence is the motor itself. Every Optibike model mentioned - the RIOT, R17T, R22T, and R22ET - utilizes the same core motor: the Optibike PowerStorm MBB, which has a peak output of 1700 watts. Yet, only the **RIOT** is claimed to be compliant with Class 1 regulations. This is a blatant indication that Optibike is not designing a true e-MTB from the ground up but rather taking an overpowered platform and tuning it down just enough to technically fit within the regulatory framework.

This practice is not just a regulatory concern - it undermines the integrity of the Class 1 e-MTB category and risks damaging the broader acceptance of e-MTBs on shared trails. Manufacturers attempting to force high-powered components reminiscent of e-moto technology into the e-MTB space through digital detuning threaten to erode trust between land managers and the e-Mountain Biking community. And just to solidify my previous claims, as an advocate for responsible e-MTB use,

this is not the type of conveyance an enthusiast like me would choose to ride on the trails. A genuine e-MTB has always been - and will always remain - a direct evolution of the classic mountain bike, designed to assist the rider through grueling ascents, while preserving the core geometry and suspension kinematics that make it a masterful tool for descents. This is not that bike.

Overarching Themes Concerning Generic Off-Road e-Bikes

If you haven't noticed by now, there are 2 overarching themes concerning all these generic e-Bike brands like Frey, Luna, Biktrix, Monkwheel, Quietkat, and Magnum. It is the **lack of mountain biking heritage,** and the **use of Bafang motors.**

We'll start this discussion with **Bafang** - the company that currently leads the global market in supplying Class 2, Class 3, and unrestricted motors.

Important context before we break this issue down: The Class 1 e-MTB market in the United States is primarily dominated by 4 major mid-drive system manufacturers: Bosch, Shimano, Brose, and Yamaha. These brands specialize in full-power mid-drives designed for high-performance applications, while other manufacturers like Mahle, TQ, and Fazua focus on medium and low-power mid-drive systems. To keep the rest of this discussion relevant, we will focus only on full-power mid-drive brands, as they are the only products to approach Bafang's more powerful offerings. A defining characteristic that sets these industry leaders apart from Bafang is their commitment to producing mid-drive systems that strictly adhere to this criterion; none of their models can be engaged with a throttle, ensuring that power delivery remains strictly tied to rider initial input. This design philosophy aligns with the broader emphasis on compliance with Class 1 regulations, reinforcing their reputation as the preferred choice for genuine e-MTBs.

Bafang is a global brand that has established itself as a dominant player in the broader e-Bike industry, with its biggest share being the rear-hub motor segment. However, when it comes to mid-drive solutions for the Class 1 e-MTB market, Bafang's presence remains conspicuously absent in the United States. Despite showcasing mid-drive concepts and working e-MTB prototypes at expos in Europe and Asia, these products have yet to make their way into the United States. The e-MTB industry that strictly adheres to Class 1 specifications, simply put, is resistant to partnering with Bafang. This hesitancy stems from the throttle compatibility that most of their catalog openly supports. Advocacy groups fiercely protect the integrity of Class 1 e-MTBs, viewing throttles as a violation of the pedal-assist ethos that underpins the sport. This operational characteristic, by the way, isn't just theoretical disqualification - it has practical implications for both manufacturers and riders. While respectable e-MTB manufacturers in the United States possess the technical expertise to integrate Bafang mid-drives into their designs, the absence of a legal framework makes such efforts commercially unviable. Without necessary classification, an e-MTB equipped with such a motor would be barred from legal use on single-track trails, rendering it unsellable to anyone wishing to legally use them there. Unless parties absolutely don't care about federal regulations, neither the

brand or the rider wants to end up with a “gray area” product. That is precisely why Bafangs’ systems will remain relegated to other e-Bike categories, leaving the United States e-MTB landscape firmly in the hands of brands that prioritize compliance and alignment with Class 1. You can verify this information yourselves by visiting and speaking with every bike shop across the valley; you won’t find a single Class 1 e-MTB equipped with a Bafang mid-drive motor.

What makes Bafang Motors so appealing to Generic Off-Road Brands?

The question that likely comes to your mind is how smaller, lesser-known e-Bike brands manage to offer extensive tuning capabilities that allow for unrestricted performance adjustments, while established brands strictly operate within structured limitations. The answer is Bafang - the company that differentiates itself by embracing a DIY-friendly approach.

Unlike Bosch, Shimano, Brose, or Yamaha, which enforce locked firmware protocols and maintain a tightly controlled approach to system integration, Bafang provides open-source software frameworks for manufacturers willing to adopt its entire ecosystem, consisting of the motor, controller, display, and battery pack. This approach allows lesser-known and generic brands to offer users unrestricted tuning capabilities, enabling multi-mode configurations that would be impossible with proprietary systems. By contrast, leading mid-drive system brands operate on locked firmware, restricting tuning to only those pre-approved by OEMs. While OEMs write and apply additional software layers to fine-tune ride characteristics, they must still adhere to closed-source protocols that prevent direct user access to core motor parameters. This ensures consistent performance, and strict compliance with Class 1 regulations - qualities essential for high-end, factory-built e-MTBs.

At its core, this contrast highlights two fundamentally different philosophies in e-Bike motor design: Bafang prioritizes accessibility, affordability, and raw power, whereas Bosch, Shimano, Brose, and Yamaha, focus on refinement, reliability, and regulatory compliance. Bafang motors appeal to budget-oriented brands and riders seeking unrestricted power at the expense of ride dynamics, power modulation, and advanced torque-sensing capabilities, while drives from Bosch, Shimano, Brose, and Yamaha appeal to reputable and respectable OEMs, and riders who seek ultimate precision, efficiency, and compliance with legal classifications.

One of the key reasons for this divergence lies in business models. Bosch, Brose, Shimano, and Yamaha exclusively supply their systems to OEMs, ensuring that they integrate seamlessly into specific e-Bike designs. Their products are not sold directly to consumers or third-party brands, reinforcing a closed ecosystem that guarantees consistency and quality. In contrast, Bafang sells its motors on the open market, allowing manufacturers - especially smaller ones - to build custom e-Bikes at a lower cost, often prioritizing raw performance over refinement. This approach is particularly evident in the DIY market, where anyone wishing to convert their bicycle into an e-Bike can purchase a Bafang conversion kit online.

Another crucial factor is engineering philosophy. While Bafang motors deliver higher peak power, their power management, efficiency, and heat dissipation systems are generally less sophisticated than those of Bosch, Brose, Shimano and Yamaha. The latter brands invest heavily in high-quality torque sensors, advanced motor controllers, and weatherproofing, ensuring smooth, predictable power delivery under all conditions. This is particularly important in high-performance e-MTB applications, where smooth and natural ride experience, precise modulation and durability matter just as much as raw power. That's not to say Bafang mid-drive motors are hazardous - they are safe to operate. It's just that Bosch, Brose, Shimano, and Yamaha have spent over a decade refining pedal-assist technology, while Bafang primarily built its reputation on throttle-actuated systems. It's also worth noting that these leading mid-drive system brands design their units strictly within legal Class 1 and Class 3 regulations. Yes, Bosch, Shimano, Brose and Yamaha, do not produce models falling under Class 2 category - they are built exclusively around pedal-assist technology, meaning they cannot be engaged with a throttle. This distinction is just one of the reasons why mountain bike brands avoid partnering with Bafang. The other reason, as previously discussed, is that Bafang's catalog is easily modifiable to squeeze more juice out of them.

Manufacturing costs also play a role. Bafang benefits from mass production in China, reducing costs significantly compared to Bosch, Brose, Shimano and Yamaha, which manufacture in Europe and Japan. The difference in labor, materials, and quality control standards contributes to the pricing gap. However, this also translates into disparities in after-sales support - where Bosch and Shimano offer strong dealer-backed service and warranties, Bafang motors are more DIY-oriented, aligning with the Right to Repair movement by allowing users to service their equipment without relying on proprietary dealer networks.

Ultimately, while I support the idea of open systems and user autonomy, I recognize the importance of maintaining the integrity of Class 1 e-MTBs. Unrestricted tunings are appealing. However, it does create regulatory challenges that undermine the ongoing trail access efforts, leading to unnecessary tension between land managers and advocates. As frustrating as proprietary firmware and software locks can be - especially when they significantly delay repairs or replacements - ensuring that Class 1 e-MTBs remain legally distinct from unrestricted, high-power setups, is critical for preserving their legitimacy in shared environments, even if that means I might be sidelined for weeks should my system decide to throw an error.

Concerning Simultaneous Classification Across Multiple Classes

As we've seen, lots of generic e-Bike brands on the market have been, and continue to shamelessly exploit the flexible interpretation of the 3-tier classification system to market their products across multiple classes. By programming their e-Bikes controllers to provide throttle assistance only up to 20 mph (meeting Class 2 requirements) and allowing pedal-assisted speeds up to 28 mph (meeting Class 3 requirements), they manage to straddle both classifications. Yet again, the enabler of this approach is the use of Bafang ecosystems. While this strategy broadens their market appeal and

gives the impression of versatility, it exploits the lack of explicit prohibitions in the current regulatory framework, and raises ethical concerns about the transparency of these brands. I note transparency, because sadly, these brands do not disclose upfront how the operational characteristics of both classes are simultaneously achieved. People only learn of them in practice, after they've already purchased, assembled and used the bike.

With regards to the owner's manual, I'm not even sure there is one inside the box. It surely comes with documentation for the 3rd party components that the bike is employing, but it doesn't appear like there's one from companies themselves. There are only service manuals for the Bafang ecosystem, and adjustment charts for the suspension, brakes and drivetrain. In fact, here's an intriguing observation about product manuals for generic e-Bike brands: I attempted to obtain the PDF files for every model referenced in the DEA. Only one of them had it available for download, and that was Magnum. There is a specific reason I am interested in them. Under U.S. law, manufacturers are required to disclose all applicable safety standards their products adhere to - including, in the case of e-Bikes, their legal classification. Aside from warranty details, the key information I sought was the Declaration of Conformity and Regulatory Statements, which are typically found in product manuals, under the brands name. These documents would confirm to me whether the e-Bikes comply with federal regulations, be it under the Consumer Product Safety Commission's definition of a "low-speed electric bicycle", or under the Department of Transportation regulations. Even though Magnum does offer the product manual beforehand, I found no mention of the legal classification that the Vertex model adheres to.

Here's why that matters: If an e-Bike exceeds 750 Watts or bypasses speed restrictions, it is no longer classified as a "low-speed electric bicycle" under Consumer Product Safety Commission's regulations. Instead, it is considered a motor vehicle, requiring compliance with Department of Transportation standards. If it fails to meet those standards, it is neither street-legal nor federally regulated. Such products would only be legal to sell if they were registered as "off-road only" or "private property use" vehicles to avoid regulatory oversight. So, is it mere coincidence that these generic brands conveniently fail to provide manuals that would expose such details?

Now, contrast that with Class 1 e-MTB manufacturers - brands committed to compliance. The Cannondale Moterra LT, Trek Marlin+ 8, and Specialized Turbo Kenevo SL 2.0, all referenced in the DEA, have their owner's manuals readily available for download. In fact, every major mountain bike brand producing e-MTBs - Pivot, Giant, Transition, Cannondale, Santa Cruz, Canyon, and Specialized - provides full documentation upfront. Here is a direct quote from the manual of my Class 1 Specialized Turbo Levo e-MTB: "The Levo is classified as a Pedelec/EPAC." - which confirms its legal designation. This is precisely the kind of transparency I was searching for in the manuals of those generic brands - yet they are conspicuously absent. How come larger, reputable brands manage to disclose their regulatory compliance without issues, while generic brands evade it entirely?

Importantly, none of these generic brands produce genuine Class 1 e-MTBs, as the level of commitment required for such products demands transparency and adherence to stricter standards. Unwilling to embrace them, they cater instead to the casual riders who are less likely to question

their marketing strategies. Such exploitation, however, is only feasible for the Class 2 / Class 3 combination. Other combinations do not work due to overlapping power and speed limits. For instance, Class 1 cannot be combined with Class 2 because both share similar speed limits, with the only difference being the presence of the throttle in Class 2. While the numerical value of speed and power limit may be identical, the presence of throttle support introduces a new dimension of control and operation, warranting its own class. Similarly, Class 1 and Class 3 also cannot be combined, as both are non-throttle based conveyances, with Class 3 simply allowing for a higher top speed. The classification system assigns a class based on the highest performance capability of the e-Bike, ensuring that a higher class only encompasses the performance criteria of a lower class. This classification logic mirrors how vehicles like sport cars or super cars are categorized. Just because these cars can drive at low speeds like regular vehicles doesn't mean they are grouped together. Instead, they are given a unique classification based on their top speed, power, and acceleration potential. A supercar can be driven slowly, just as a Class 3 e-Bike can be ridden under 20 mph, but what matters is the peak performance its attributes are capable of achieving. That is precisely why the 3-tier classification system exists. It is designed to separate different categories based on their peak performance capabilities. Given this context, no further manipulation of the language or loopholes can be exploited beyond the Class 2 / Class 3 combination.

By the way, this approach would only make sense if the e-Bikes have motors that do not exceed the 750 Watts of peak power. If the motor exceeds the power limit, then regardless of marketing spin to cater to multiple classifications, their tactic would be considered Grey Market Manipulation. Since the bike at that point would not fall under CPSC's "low-speed electric bicycle" definition, marketing it using selective language taken from the 3-tier classification would constitute manipulation. Why would someone market their products using references from the legally recognized classification system when their products clearly do not fall under that classification? One wouldn't. Unless one's trying to craft an appearance of compliance while knowing all too well their products don't. Just because they are capable of achieving similar metrics doesn't give them the right to use associative language to market them to appear compliant with those classes.

Are these practices illegal?

It depends on the application, and in some cases on jurisdiction. If we're talking about brands remaining compliant within the 3-tier classification system, then sadly, they are not. Legality, in this case, resides in a murky gray area rather than being explicitly outlawed. The Consumer Product Safety Commission oversees e-Bikes strictly as consumer products, only ensuring that products falling under "low-speed electric bicycles" are safe. It does not oversee the 3-tier classification system. In fact, there is no single federal agency in the U.S. that enforces it. While it is widely recognized as an effective framework for e-Bike differentiation, it exists only at the state level. Its application depends solely on local authorities - it is not a federal law. This distinction creates a regulatory gap that some manufacturers have learned to navigate, often to their advantage.

The core issue lies in the way the classification system is written. Nowhere does it explicitly forbid blending operational characteristics from one class and applying them to another. This lack of precise language has left room for ambiguity, allowing certain manufacturers to market products that blur the lines between classes without technically violating any written rule. It's not that the system was deliberately designed to be exploited, but rather that its drafters likely didn't anticipate how opportunistic companies would manipulate its wording. In an industry where regulatory loopholes exist, grifting becomes an open game. Many of these generic companies have seized the opportunity to push products that straddle multiple classifications, leveraging this regulatory vagueness to serve their own interests.

Many generic and lesser-known e-Bike brands pre-program their bike controllers to default to a "street-legal mode" while giving users the ability to unlock an "off-road mode", which removes speed limits and power restrictions. This practice allows them to claim compliance at the point of sale, and shift the legal burden and responsibility to the user by offering optional performance enhancements. Since most regulations focus on how the bike is sold and initially configured, brands can claim that the e-Bike, out of the box, meets the legal classifications they advertised. This shields them from liability while still enticing buyers who fully intend to use the bikes on public roads. As an obvious case of system exploitation, it's not outright illegal either.

However, if a brand producing e-Bikes that exceed the 750 Watts is explicitly marketing them as compliant Class 1, 2, and 3 models simultaneously, then it might be illegal. The nominal peak power output exceeding the 750 Watts is what bumps the bike into a stricter category, often requiring it to comply with the DOT or NHTSA Rules. If a brand knowingly blends the two of them together, falsely identifying the bike as compliant to cater to those wishing to use their products on public roads, that is an illegal practice. If anyone is aware of brands that explicitly market their products across all 3 e-Bike classifications simultaneously, while employing a motor that exceeds the 750 Watts of nominal power, without also explicitly stating that it's an "off-road only" vehicle, a report should be filed with the Consumer Product Safety Commission as a product safety violation. If anyone feels comfortable reporting brands for deceptive business practices, I strongly encourage you to do so. It's important to remember that it is the regulatory body that defines vehicle classifications and safety standards, not the brands. Last I checked, the government has not given brands the autonomy to self-classify their conveyances. So holding those brands accountable ensures greater transparency in the market and protects consumers from misleading claims.

But here's the challenge: even if a product manual does exist, there's no way to verify whether it's included in the box. All of these generic and lesser-known brands operate online and ship directly to consumers, avoiding dealer networks. Since manuals aren't available for download, and e-Bikes aren't sold or rented in physical stores in the Jackson area, I can't walk into a shop and inquire about reading the manual. This forces me into a frustrating position where I must extrapolate from the information I have available - something I prefer to avoid. I want to believe these brands adhere to federal regulations. However, given the overwhelming pattern of evasive marketing, ambiguous classification claims, and outright failure to provide transparency, I'm left with little alternative but to question their legitimacy. Based on the information I've gathered on them, these products are

designated as “off-road only” and “private property use” vehicles - intentionally marketed as such to circumvent regulatory oversight. The explicit off-road designation is precisely what dodges them from responsibility. This strategy is nothing but a legal loophole to bypass e-Bike classification rules and laws required for public roads.

While deceptive marketing tactics, regulatory loopholes, and misleading classifications may obscure the true nature of these off-road e-Bikes, it’s still the responsibility of the rider to educate themselves and understand the capabilities of their conveyance. Ignorance is not an excuse. Manufacturers may exploit gray areas, blending class definitions and offering performance unlocks, but that lack of awareness does not excuse improper use. Therefore, the argument that “***Consumers could easily not know what class of e-bike they are purchasing and unknowingly bring a Class 2 or 3 e-bike onto the trails.”***, as ridiculous as it is, does not absolve users from the duty to understand the legal and practical implications of the machines they operate. Misinformation and misinterpretation leads to unintentional violations in other regulatory domains, I fully understand that. However, the burden of responsibility, regardless of the situation one finds themselves in, ultimately falls on them.

Overarching Theme #2: Lack of Heritage

The e-MTBs that responsible riders advocate for come exclusively from established mountain bike brands that have invested in the sport’s evolution - not from obscure companies with no mountain biking heritage. This distinction is crucial, as no local shop stocks off-road e-Bikes from generic and lesser-known brands referenced in the DEA - Frey, Luna, Biktrix, Quietkat, Monkwheel, and Magnum. These brands do not manufacture traditional bicycles at all, which is a telling sign that they are not focused on mountain biking as a discipline but rather on producing off-road e-Bikes with features aimed at casual, motor-dependent riding. In contrast, every bike shop in the valley that sells and rents e-MTBs does so with a focus on brands that have earned their place in the mountain biking world - companies with deep roots in mountain biking. Not only that, many decision-makers fail to recognize that the dealer shops in the area selling Class 1 e-MTBs also sell regular mountain bikes from the same respected brands - brands that design and manufacture both classic and electric mountain bikes to the same high standards. These companies have spent decades refining frame geometries, suspension kinematics, and ride dynamics for human-powered mountain bikes, and their e-MTBs are built upon the proven success of those designs. The only difference is that e-MTB frames are adjusted to seamlessly integrate a mid-drive unit and battery system, all while maintaining the core characteristics that define a true mountain biking experience.

The distinction between legitimate Class 1 e-MTBs and non-compliant off-road e-Bikes is further reinforced by the choice of motor manufacturers. The industry-standard, pedal-assist-only e-MTBs from respected mountain bike brands exclusively use mid-drive systems from Bosch, Shimano, Brose, and Yamaha - 4 manufacturers that adhere to strict regulations and do not allow for throttle support. No other mid-drive brand in the U.S. is utilized by reputable mountain bike manufacturers. Notably absent from this list is Bafang - the brand that openly supports throttles. No reputable

mountain bike brand is willing to risk compromising the integrity of their products, their advocacy efforts, or the hard-earned progress made in gaining trail access by incorporating Bafang systems.

Conversely, all the aforementioned lesser-known off-road e-Bike brands - Frey, Luna, Biktrix, Monkwheel, Quietkat, and Magnum - use Bafang motors, both mid-drive offerings and rear-hub alternatives. None of them employ mid-drive units from Bosch, Shimano, Brose, and Yamaha. This is yet another indication that these brands and their products cater to the casual riders who prioritize motorized assistance rather than seasoned individuals who know what they want from their equipment - nuanced, pedal-centric experience that defines mountain biking. These bikes are not built with the same rigorous performance standards as genuine e-MTBs, and are not designed to serve riders who value the technical precision and responsive handling that mountain bike brands have spent decades perfecting.

Even among e-Bike rental shops in Jackson, none offer genuine Class 1 e-MTBs for trail use. I have personally visited these businesses, spoken with owners, and examined their rental fleets. Their inventory consists exclusively of throttle-based, comfort-oriented e-Bikes designed for casual riding around town or along paved pathways. In fact, none of their rental models are suited for single-track trail riding, nor are they designed to handle technical terrain. If someone attempted to take one of these rental e-Bikes onto the trail, they would quickly realize its limitations, both in performance and control, and discourage them from continuing to ride. This reality underscores a fundamental flaw in the argument that e-Bike rental businesses are a gateway to unauthorized e-Bike use on trails. Visitors who rent e-Bikes from e-Bike shops, and not from the dealer shops selling mountain bikes, are not being supplied with machines capable of tackling the trails in the first place. Instead, they would go to dealer shops, where Class 1 e-MTBs are stocked alongside standard mountain bikes, where the customer base consists of experienced riders who understand trail etiquette and technical riding. It is yet again, crucial to distinguish between casual e-Bike users and e-MTB riders. The former rent from businesses catering to urban cycling, while the latter are outdoor enthusiasts seeking a capable machine for legitimate trail riding. Conflating these two groups distorts the conversation around e-MTB access and fuels unnecessary opposition based on misconceptions rather than reality.

Since direct sales data for these brands is scarce, I have no reliable way to determine the number of the non-compliant e-Bikes from those aforementioned brands that could possibly be in circulation across the U.S. today, making it impossible to calculate the probability of them appearing on trails in Jackson. However, since the Jackson area does not have local dealers selling or renting those models, their presence here would depend entirely on out-of-state visitors, meaning people would have to haul their non-compliant e-Bikes to Jackson. Assuming we go with an alternative in which only Class 1 are allowed to access the trails, the likelihood of visitors bringing their own non-compliant e-Bikes is lower than that of renting a compliant Class 1 e-Bike locally. While I have no data to support it, the prevalence of such use in Jackson, I believe, would likely be no higher than the current illegal use. What the Draft Environmental Analysis also fails to factor in is that thousands of e-Bikes of various classes are already in use in town and throughout the valley all summer long, yet very few poach the trails. Even when it does occur, it's typically by riders on Class 1 e-MTBs – e-Bikes actually

suited for trail riding. (And to those who denigrate my advocacy efforts while engaging in irresponsible riding themselves - shame on you.) And just as the current illegal use has no more impact on the trails than regular bikes, those non-compliant e-Bikes would have similar effects as the Class 1 e-Bikes this proposition would allow. Even if the occasional visitor brought a Class 3 e-Bike, its pedal-assist simply wouldn't be powerful enough to put any more wear and tear on the trails than my compliant Class 1 e-MTB, for example. And if you're still worried that out-of-state visitors will show up with the extreme, out-of-class e-Bikes akin to those referenced in the DEA that *could* damage the trails, then you've missed the point entirely. All sorts of unclassified contraptions are hitting the streets today, yet they are still not used for poaching the trails. Nothing stops locals from ordering an unclassified QuietKat JEEP e-Bike online and hitting the trails today. It's much more affordable than a Class 1 e-MTB, has much more power, and it also has a full-suspension. Why isn't it dominating the scene? That's because this segment of the e-Bike market caters to an entirely different user base - people using them for hauling all sorts of stuff around, not for trail riding. It surely can be used for that, but it's not designed with that discipline in mind. Musicians wouldn't play progressive bluegrass using downtuned 8 string electric guitars with active humbucker pickups going through an overdrive pedal in front of a 100 Watt Mesa Dual Rectifier that has its gain knob cranked to 11, and outputting all that through a couple 4x12 full stacks loaded with Celestion V30 speakers, would they? e-MTB enthusiasts would not opt for an ill-suited e-Bike for their activity, just as musicians would not pick an instrument mismatched for their genre.

When it comes to e-Bike choice for trails riding, it's perplexing that Bridger Teton National Forest fails to recognize where I stand - I advocate for more restrictive measures, not fewer. I, and many others, will always choose an e-MTB that is compliant with regulatory frameworks, rather than opt for a brand that willfully exploits it. Doesn't that, in itself, prove commitment towards responsible use and following the rules? It is baffling that access continues to be denied to such riders, simply because of the existence of certain non-compliant, multi-mode, out-of-class e-Bikes that resemble legitimate Class 1 e-MTBs in geometry, but not in function.

The logic behind restricting access to Class 1 e-MTBs due to the potential for non-compliant bikes appearing on trails is fundamentally flawed. If existing regulations are not capable of preventing 100% of illegal activities - such as the occasional use of unauthorized e-Bikes in prohibited areas - why should responsible riders be penalized for infractions they are not committing? By that reasoning, should we also ban regular mountain bikes because some riders choose to ignore the early season closures on the Skyline trail? Perhaps we should! After all, some riders' irresponsibility is what also leads to the creation of illegal trails around the forest. We all know that the best way to avoid illegal activities is banning the very thing that causes it. Jokes aside, the reality is that access policies should be designed to support those who intend to follow the rules, not restrict them based on the hypothetical actions of a few bad actors. So allowing Class 1 e-MTBs would provide responsible riders with a clear and lawful way to enjoy the trails, rather than forcing them to endure blanket prohibitions based on unfounded concerns.

In summary, respected mountain bike brands that produce e-MTBs alongside their traditional models use only Bosch, Shimano, Brose, and Yamaha mid-drive systems - none of which support throttles. In contrast, lesser-known off-road e-Bike brands rely exclusively on Bafang, a brand that accommodates throttle use, further demonstrating their deviation from the core principles of mountain biking. The continued restriction of Class 1 e-MTB access due to concerns about these fundamentally different machines is not only unfounded but also misrepresents the reality of the e-MTB market and its presence in our local bike shops. If responsible riders are willing to abide by the rules, ride compliant machines, and promote a sustainable future for e-MTB access, why are they still being denied the opportunity to share the trails?

In Conclusion to the e-Bikes referenced in the DEA

An authentic e-MTB is not just an electric bicycle with knobby tires - it is the product of decades of mountain biking evolution, engineered with precision to balance power, handling, and stewardship. It's an instrument of the sport, designed to enhance the ride without redefining it, to elevate rider capability without replacing skill. The models referenced in the DEA fail to uphold these principles. They are not conceived with mountain biking heritage in mind, nor do they preserve the handling characteristics expected of a classic mountain bike. Instead, they are impostors masquerading as something they are not - an attempt to capitalize on the growing e-MTB market without any regard for the discipline's foundational values. These machines are not designed for the nuanced demands of singletrack, nor do they seek to preserve the delicate balance between assistance and rider effort that makes Class 1 e-MTBs a responsible and sustainable addition to the sport.

A true e-MTB does not emerge from specification sheets overloaded with kilowatts and speed figures, it emerges from a deep understanding of mountain biking itself. The progenitors of e-MTB industry - Trek, Canyon, Specialized, Pivot, Giant, and others - recognize this, which is why their Class 1 e-MTBs seamlessly integrate with the sport rather than disrupt it. Their models retain the spirit of mountain biking, where skill, endurance, and engagement with the terrain remain paramount. These values stand in stark contrast to the generic and lesser-known brands depicted in the DEA, whose products are built on a foundation of excess instead of balance.

The e-Bikes referenced in the DEA are products of an entirely different lineage. Their manufacturers have no history in the mountain bike scene, no stake in preserving trail access, and no commitment to the responsible use and integration of e-MTBs into established riding networks. When land managers assess whether e-Bikes belong to the trails, it is imperative that they differentiate between those designed as extensions of mountain biking and those that simply exploit its aesthetics for some commercial gain. The future of e-MTB access depends on recognizing these distinctions. If land-use decisions are based on the worst examples - machines that are not representative of the genuine e-MTB market - policies will remain entirely disconnected from reality, and will continue to frustrate both well-meaning riders who seek genuine engagement with the trail, and land managers tasked with balancing innovation and conservation.

But what ***is*** an authentic e-MTB, you might ask. Here is where I stand:

The Definition of an e-Mountain Bike (e-MTB)

Today, there is no legal framework that explicitly defines what is, and what is not an e-MTB. This means the question of what truly defines it is a matter of personal interpretation - a debate shaped solely by individual perspectives. For some, e-Bikes with off-road capabilities fall under that category, while others take a more discerning approach, weighing not just function but also lineage, intent, and design philosophy. Within the dedicated e-MTB community - those at the forefront of this advocacy - the definition is much clearer. For them, an e-MTB is not simply an off-road e-Bike with knobby tires; it's a direct evolution of the classic mountain bike, retaining its geometry, suspension kinematics, and handling characteristics that define the sport. The only fundamental difference lies in a redesigned lower frame section, engineered to accommodate a seamlessly integrated mid-drive system and a dedicated battery pack. This approach ensures that the rider experience remains true to mountain biking's core identity, preserving the balance, responsiveness, and technical capability that riders expect on the trail.

The e-MTBs that responsible riders advocate for are not haphazard creations from companies with no connection to mountain biking. They come exclusively from established mountain bike brands - the progenitors of the sport - who have invested decades in refining frame geometry, perfecting suspension systems, and understanding the nuanced relationship between rider and terrain. These brands design their bikes with an understanding that mountain biking is a discipline of skill, balance, and engagement with the trail. And they continue applying that hard-earned expertise in the mountain biking designs to ensure that electric assist enhances, rather than compromises, the e-Mountain Biking experience. These brands did not stumble into e-MTB production as a quick cash grab; they evolved into it.

In stark contrast, lesser-known brands, particularly those with no history in mountain biking, fail to grasp these essential principles. Their models often bear superficial similarities to e-MTBs but reveal fundamental flaws upon closer inspection. Lacking a foundation in classic mountain bike design, these companies do not refine their frames around the sport's demands; instead, they simply build around the motor, and prioritize power output over handling and performance. Their bikes tend to be overbuilt in ways that hinder agility, with awkward geometries that compromise stability on technical terrain. Most of these companies do not manufacture regular bicycles at all - a telling sign that they are not focused on mountain biking as a sport but rather on producing generic off-road e-Bikes meant for casual, motor-dependent riding. For this very reason, their offerings do not win over the hearts of serious mountain bike enthusiasts, who can immediately recognize when a bike has been designed without an intimate understanding of the sport.

Ultimately, the difference is stark: an e-MTB, as recognized by the community that values the sport's integrity, is a mountain bike first and an electric-assist vehicle second. It carries the DNA of decades

of mountain biking evolution, with electric power seamlessly integrated into a design that still prioritizes rider input, skill, and engagement with the terrain. Anything less - a machine designed primarily around a motor with mountain biking as an afterthought - is merely a casual off-road e-Bike, and no amount of marketing spin can change that.

If there is no legal framework defining what an e-MTB is, who is to define it?

The answer is: the mountain biking industry which it directly derives from. Because the e-MTB sector is both the progenitor of this conveyance and the chief advocate of this adopted technology, it is reasonable and fair for them to define what an e-MTB is. It is the sector that's comprised of engineers, riders, and enthusiasts who pioneered and shaped this beautiful conveyance. After all, these are the individuals with firsthand experience and deep passion for both traditional mountain biking and the new, pedal-assist innovations that evolved from it. It is through their expertise, passion, and firsthand interaction with these machines that a meaningful and fair definition of e-MTBs should emerge. Their intimate understanding of the sport's core values, combined with their drive to enhance performance without compromising the physical and mental engagement intrinsic to mountain biking, uniquely positions them to set standards that maintain the essence of the discipline.

However, If anyone finds it disingenuous that I favor the sector best equipped to define its own identity over offering valuable input for the Bridger-Teton National Forest to make an informed decision, let me present an alternative - one that shifts the discussion to the fundamental technology at the heart of this debate. I still believe the defining factor of an e-MTB is its shared DNA with regular mountain bikes - geometry and suspension design. However, for the purpose of this discussion, let's remove that ambiguity and focus on the core component that distinguishes one from the other. Regardless of geometry and other structural features, the main argument between regular mountain bikes and bicycle-style e-Bikes lies down to the presence of the motor. In the context of the previous discussion, the simplest, most enforceable, and most effective solution for managing e-Bikes on trails will always be, and always remain, focusing on e-Bikes that are equipped with mid-drive systems, and prohibit any use of those with rear hub motors. This isn't an arbitrary distinction; hub motors are fundamentally designed to facilitate throttle engagement, and by eliminating them from the equation, we immediately remove the most common e-Bike on the market: Class 2. What remains is an even narrower, more defined market of e-Bikes built around mid-drive systems, which inherently align with the principles of pedal-assisted riding rather than throttle-actuated propulsion.

To further refine this approach, there is only one remaining outlier within the mid-drive sector: Bafang. Unlike Bosch, Shimano, Brose, and Yamaha - the 4 brands universally adopted by reputable mountain bike manufacturers - Bafang motors appear exclusively on e-Bikes from lesser-known brands with no heritage in the sport. These bikes are not engineered for technical trail riding but are instead designed for general off-road use, often in open terrain like grasslands. Moreover, Bafang

mid-drives frequently exceed the 750 Watt power limit and are openly compatible with throttle integration, making them fundamentally misaligned with the ethos of pedal-assisted mountain biking.

By anchoring access policies to mid-drive motor selection, we remove the ambiguity surrounding what qualifies as a legitimate e-MTB. This approach ensures that only bikes featuring systems from Bosch, Shimano, Brose, or Yamaha (full-power e-Bikes), and Mahle, TQ, or Fazua (medium and low-power e-Bikes) - manufacturers committed to pedal-assist functionality - are permitted. These brands are not only industry leaders in reliability and integration but also serve as the standard for virtually every major mountain bike manufacturer, reinforcing their suitability for regulated trail use, as they are built to ensure that rider input remains a fundamental component of movement. Again, notably, none of these compliant mid-drive solutions are found on generic and lesser-known e-Bike brands.

To some extent I agree that the debate surrounding e-Bike access on trails is not about characteristics like frame geometry or aesthetics - it is about function. A Class 1 fat-tire hardtail e-Bike running a Shimano EP801 mid-drive system should be just as welcome on single-track trails as a sleek full-suspension e-MTB - it's the drive system that dictates compliance, not the silhouette of the bike. Aside from the fact that such a bike would still feel cumbersome to ride on trails, the decision to ride one there should ultimately rest with the individual. Consequently, any e-Bike, regardless of how chunky, ugly, pretty, or shiny it appears to be, as long as it employs a mid-drive system from those 4 manufacturers, it should be considered compliant and safe to be ridden on the trails.

This strategy also simplifies enforcement. Most e-MTBs prominently display their mid-drive unit brands on the enclosure or along the chainstay, making visual identification quick and straightforward. If a bike carries a Bosch, Shimano, Brose, or Yamaha mid-drive system, it is inherently compliant. If it features a hub motor, a thumb throttle, or a drive unit from Bafang - it falls outside the scope of a pedal-assist designation and should not be allowed on the trails. While enforcement logistics ultimately rest with the Forest Service, this framework offers a clear and practical way to distinguish compliant e-Bikes from those non-compliant in a matter of seconds.

At its core, this discussion has never been about superficial characteristics - it has always been about function. By centering policy around high-quality mid-drive systems, we can create a regulatory model that is not only enforceable but also preserves the integrity of the sport. Again, I still believe that the defining factor of e-MTBs is its shared DNA with regular mountain bikes - geometry and suspension design. I am certain that in the climate of users advocating for this accessibility, the vast majority of e-Bikes using the trails will be Class 1 e-MTBs - conveyances derived directly from their non-electric counterparts. Advocates for the responsible use of these conveyances advocate for Class 1 not because of geometry and suspension design, but because these structural features are a fundamental part of the conveyance type that is built in this class. In the context of mountain biking, we, as enthusiasts of this adopted technology, may indeed be entrenched in our own ways of viewing things. I plead guilty. However, if deemed necessary for a free and fair consideration of this proposition, you're free to disregard these arbitraries. I promise I won't get offended if you don't

recognize my individual perspective. If Bridger-Teton National Forest truly wants to balance access with responsible recreation, the answer isn't to get lost in the weeds of frame design, or what constitutes an e-MTB - it's to ensure that only e-Bikes built around genuine pedal-assist technology are allowed on the trails. This is the cleanest, and perhaps the most logical path forward.

Discerning e-Bike Classes at a Glance

When discerning bicycle-style e-Bike classes at a glance, the most pragmatic and efficient approach is to use an exclusionary method rather than attempting to directly identify a specific class. The first indicator is the system engagement type; any e-Bike with its motor integrated into the hub of the rear wheel is primarily a Class 2 e-Bike, with some models having Class 3 capabilities. I also explain in detail how it is possible for those lesser-known brands to achieve simultaneous classification and still remain compliant with regulations in the next subtopic. If focusing on Class 1, these bikes would automatically be disqualified from consideration. Hub-driven e-Bikes very often come with fat tires, typically between 4 and 5 inches wide, and have 18 to 26 inch wheels, which are extremely rare on mid-drive based e-Bikes. In fact, tires wider than 3 inches are a strong indication that the bike is not a Class 1. In contrast, Class 1 e-MTBs usually feature tire widths identical to regular mountain bikes, ranging from 2.3 to 2.6 inches and with larger diameter wheels, such as 27.5 and 29 inches. Another clear indication is the chainring size. Class 3 e-Bikes often come with larger chain rings compared to the smaller, more efficient ones on Class 1 models. Finally, if the e-Bike has full suspension, employs a mid-drive system, isn't equipped with trekking accessories, comes from a reputable mountain bike brand and looks just like a regular mountain bike but much cooler, it is very likely a Class 1 e-MTB.

In the context of Forest Service Law Enforcement having only a few seconds to assess whether an e-Bike might be non-compliant with Class 1, tire widths are the first thing officers should examine. Visually, fat tires stand out the most against the backdrop of thinner tires of Class 1 e-MTBs, and provide Forest Service Law Enforcement with a solid basis for stopping someone to verify compliance. At that point, when the bike is stationary, the engagement type is what should be observed to rule out non-compliant classes. Specifically, the inspector needs to verify the motor brand and its placement. Fat tire e-Bikes are not often associated with Class 1, which means they are likely to feature a hub drive instead of a mid-drive system. If so, that e-Bike is not compliant with Class 1, and shall be removed from the trails. If the e-Bike features a mid-drive unit, the inspector then needs to verify its brand. Most e-Bike manufacturers display their mid-drive unit brands clearly on the enclosure or along the chainstay, so glancing over and identifying what is driving the bike should only take a few seconds. If it's a brand other than Bosch, Shimano, Brose, and Yamaha (full-power e-Bikes) or Mahle, TQ, and Fazua (lightweight e-Bikes), the e-Bike is automatically considered non-compliant, as these are the only brands adhering to pedal-assistance as a protocol and do not allow throttle engagement, aligning with Class 1.

I understand this might sound excessive, but with a little effort and willingness to break things down, it's pretty easy to understand. If that's beyond anyone's comprehension, then simply checking

the class number printed on the bike frame would suffice. If it says Class 1, it by default indicates that the bike is equipped with one of the mid-drives from those 7 manufacturers. Along with that, the Class 1 label also indicates that the battery which is powering the bike is either CE or UL certified. In compliance with Consumer Product Safety Commission regulations, genuine Class 1 e-MTBs must meet this standard before they can be sold in the United States market. If arguments about forging classification stickers still remains a topic for contentious debate, then please read the "Tamper Mods and Similarities to Class 3" part again, you may have missed a very important point.

Unless there are specific laws enacted in the judicial system that currently prohibit officers from stopping anyone without a cause, it should be anticipated that e-Bike riders will face frequent stops for verification, especially during the pilot year. This will be a period of heightened scrutiny as the agency gathers data and refines its enforcement protocols. Accepting this level of oversight as a temporary but necessary measure to ensure compliance and protect trail access for e-MTB users in the future, I think this is a fair compromise.

e-MTB Batteries

This is not a topic I approach lightly; in fact, I wrestle with a profound sense of frustration every time it crosses my mind. It lies not with the batteries themselves, but rather with how certain individuals selectively exploit worst-case scenarios to mislead well-meaning minds astray. I feel uncomfortable adding this piece because it involves some criticism towards this rare species of individuals who continue spreading misinformation about lithium-ion batteries. It's deeply disheartening to witness their actions sparking unnecessary fear, and stirring up inflammatory debates aiming to convince the Bridger-Teton National Forest and the general public that e-Bike batteries are a legitimate topic of concern. Sadly, their selective narratives, lack of due diligence fail to provide any factual evidence to substantiate their claims, overlook crucial details, obscure the broader truth, and derail opportunities for any meaningful discussions. I'm sorry, this is a long-overdue conversation that needs to be had, regardless of how uncomfortable each one of us feels about it. Each time I read public comments, I'm basically entering a preloaded minefield of opinions and common misconceptions that do not align with reality, and I want to address them before any more innocent and curious minds are inadvertently blown to bits. Like those e-Bikes, in New York.

As mentioned by people in the comment section, New York has had a severe e-Bike fire problem. However, what is overlooked in these submissions is that none of the incidents involve e-MTBs. The reason all the e-Bike fires making sensationalized headlines are city-specific is because the issue is primarily urban. People in these areas are known to cut corners on safety to keep costs down, building throttle-assisted e-Bikes on their own, using cheap, low quality, and uncertified batteries imported from Asian markets, most of which lack dedicated safety features necessary for regulating voltages and preventing overheating. Certified e-Bike batteries with stringent safety protocols and equipped with sophisticated Battery Management Systems are expensive, as is life in New York. In a city where the cost of living constantly pushes residents to make tough financial decisions, the

temptation to cheap out on components such as unregulated batteries is very strong. For context, the cost of a modern e-MTB battery alone often exceeds the price of the entire contraption catching fire in these city-based incidents. While I am aware that e-MTB batteries may not cost that much to manufacture, certainly not above 4 figures, that is the price I pay for a product that is certified to be free from significant risk. To date, in both United States and European markets, there hasn't been a single recorded instance of an e-MTB battery catching fire in the wild due to use. This impeccable safety record is a result of years of rigorous safety feature development and extensive testing to meet and exceed industry standards.

Teton County, in contrast, paints a very different picture. As one of the wealthiest counties in the nation, its residents are far less likely to compromise on safety in pursuit of savings. Here, all e-Bikes are purchased from local stores rather than self-converted using 3rd party kits. Unlike New York, the e-Bikes sold in these shops come equipped with certified batteries that adhere to safety standards. As a result, Teton County has not experienced a single e-Bike fire. Purchasing certified products has effectively eliminated the risks associated with cheap, uncertified batteries and DIY builds.

Importantly, all of those reported fires have occurred inside private residences, while batteries were charging, overnight. None of those incidents happened while batteries were in use in natural environments. National Forests don't even have the infrastructure for battery charging, nor does this agency have any accessible electric outlets in the trail vicinity for that matter, meaning the fear of fires caused by charging e-MTBs is irrelevant in this context. While both processes carry their own risks, charging stands out as significantly more hazardous due to the direct addition of energy into the battery. However, when these processes are aided by stringent safety protocols, electrical faults can be effectively nullified. One of those protocols is the Battery Management System. All modern e-Bikes batteries today come standard with this safety feature, which plays a crucial role in monitoring, protecting, and optimizing lithium-ion batteries throughout their lifespan. It's essentially an intelligent fuse built into the battery. If any issues were to arise, it immediately activates overcurrent protection to mitigate risks associated with rising temperatures, errors, or electrical faults. The Battery Management System is also responsible for maintaining battery health by balancing the charge between cells and limiting the maximum voltage that any cell can reach. Similarly, during use, the Battery Management System ensures even power draw from each cell. If any performance anomalies are detected, the Battery Management System assesses the risk and decides whether it's safe to continue discharging the battery, significantly reducing thermal runaway risk. These sophisticated safety features are absent in many low-quality e-bike batteries catching fire in New York, precisely why they are prone to failure.

As much as I'd like to say otherwise, there is always a risk associated with lithium-ion batteries, just as much risk as carrying an iPhone in your backpack while hiking. In the context of mountain biking, it's just as much risk as having advanced wireless suspension control systems, electronic gear shifting systems, as well as electronic dropper posts that newer regular mountain bikes come already equipped with. These innovations, I would like to make everyone aware of, are also powered by dedicated lithium-ion batteries. I'd wager that most of you reading this letter now are not even aware that these technological advancements even exist, let alone know that they are already being

used on trails today. I do not want to be dismissive of risk; a battery catching fire would undeniably have major consequences in e-MTB accessibility. However, that risk is drastically exaggerated. The actual likelihood of such events happening is exceedingly small. Chances of anything bad happening from modern-day e-MTB batteries are of magnitude less than those from lower-tier battery packs, such as those commonly found in certified Class 2 e-Bikes. Those numbers are already ridiculously low as is, which makes the already rare event of a battery failure even less likely. Yes, it is *possible* for a lithium-ion battery to fail catastrophically, just as it's possible for your trusted iPhone to spontaneously burst in flames. But probability? That's an entirely different metric. Our minds tend to conflate the possibility and the probability of something with how vividly we can imagine it. Picturing something doesn't make it statistically likely. The truth is that e-MTB batteries are built with the highest safety standards in the industry. Because they are designed for use in natural environments where fire hazard is a substantial risk for everyone involved, battery manufacturers for the e-MTB market are held to an incredibly high safety standard, not just by the government agency overseeing compliance, but also by reputable mountain bike brands producing Class 1 e-MTBs. No respectable brand would risk pairing low quality battery packs with their frames and staining their name and reputation if it wasn't for such a high level of commitment toward product safety.

Modern e-MTB batteries are housed in rugged and durable casings designed to shield the battery cells from physical impacts and stresses encountered during use. These battery designs feature dedicated absorption systems made from specialized materials, such as elastomers to cushion the housing, and thermal isolators to cushion each battery cell. Thermal isolators, by the way, are plastic contraptions made of fire-retardant materials that hold each battery cell separated from each other. Their primary function is to dampen and dissipate vibrations, protecting the cells from mechanical stress and damage during rough riding. Their secondary function is to reduce the risk of heat propagation and improve heat dissipation. Secure locking mechanisms are also integral to preventing dislodging, ensuring the battery remains firmly in place during use. Since these battery packs power conveyances that traverse rough terrain, their housing must withstand significant jolts without compromising structural integrity. Battery designs undergo rigorous impact and vibration tests that simulate real-world riding stresses to ensure durability. The housing also serves as a shield against environmental factors like water, mud, and dust, adhering to IPX-5 or IPX-6 standards. This may seem overkill, but Panasonic, for example, is building complete battery packs with waterproof sleeves inserted between the inner wall of the outer shell and battery thermal isolators, providing an additional layer of protection against the elements, equivalent to IPX-7 standards. On top of that, all manufacturers design enclosures using flame retardant materials with a UL94 V-0 rating, meaning the material is highly resistant to fire spread. In accordance with UN regulations, all e-MTB batteries must comply with the UN Model Regulations and Manual of Test and Criteria. They undergo extensive tests such as Altitude Simulation, Thermal, Vibration, Shock, External Short Circuit, Impact, Crush, Overcharge, Forced Discharge and Flammability. All e-MTB batteries are CE or UL certified, which means products have undergone rigorous testing by the UN against nationally recognized safety hazards, and that they have been certified to be free from significant risk, be that fire or electric shock. The Federal Trade Commission then ensures that e-MTBs sold in the United States meet these consumer protection and safety standards.

Speaking of battery cells, there are three major companies in the lithium-ion cell industry that e-MTB manufacturers use to build batteries for their products: Samsung, Panasonic, and LG, all of which have solid reputations in their respective market segments. Each of these entities adheres to manufacturing protocols to ensure quality before battery cells are shipped in bulk to battery pack manufacturers. Panasonic also assembles complete battery systems for some e-MTB brands, including dedicated Smart Chargers and the Battery Management System. As unfortunate as it is, lithium-ion batteries degrade over time, and their efficiency declines with each charging cycle. When pairing Smart Chargers and Battery Management Systems together, they automatically make necessary adjustments to the voltage to reduce the risk of cell damage, ensuring battery efficiency and optimizing lifespan.

As technology advances, lithium iron phosphate (LFP) batteries are gaining attention due to their improved thermal stability, which dramatically enhances safety. This is an improvement over the safety level that is already high as is. While most new e-MTBs still use lithium nickel manganese cobalt (Li-NMC) and lithium nickel cobalt aluminum (Li-NCA) cells due to their high energy density, lithium iron phosphate cells are becoming more common in the e-MTB industry, albeit at the cost of lower energy density. Some of the industry leaders have already adopted it, and more brands are expected to shift their products towards using this even safer technology. If all of the above is not an indication of commitment toward an elevated safety level, I'm not sure what else could be...

I've recently been made aware that there are some people who are confusing lithium-ion batteries with lead-acid batteries commonly found under the hood of gas-powered vehicles. Consequently, having concerns that they are prone to corrosive chemical leaks such as sulphuric acid that could contaminate the environment. If you happen to be one of those who is thinking in terms of a century old technology, rest assured this is not the case. Lithium-ion batteries do not contain sulfuric acid or any other acidic electrolyte; they use non-aqueous electrolytes based on organic solvents. The composition and chemistry of lithium-ion batteries are fundamentally different from those of lead-acid batteries, though they have their own set of environmental considerations. Please do not confuse one with the other.

Problematic Claims and Statements in the DEA

We'll start this discussion with the most egregious one:

Claim **#1:** *"While e-Bikes are federally classified as motor vehicles, many states including Wyoming do not classify e-Bikes as motor vehicles."* - quote taken from the **"Lack of Consistent E-Bike Regulations across Jurisdictions"** paragraph.

The first part of this statement is false. E-bikes are **not federally classified as motor vehicles** in the United States. Under federal law, e-Bikes with operational pedals, a motor of 750 watts (1 horsepower) or less, and a top speed of 20 mph (when powered solely by the motor) are classified as **bicycles** - specifically, low-speed electric bicycles - **not** motor vehicles. This classification was established by

the **Consumer Product Safety Act (CPSA)** in 2002, and is overseen by the **Consumer Product Safety Commission (CPSC)**. The National Forest Service is the last federal agency in the nation to continue classifying e-Bikes as motor vehicles. If that statement was in reference to how e-Bike are classified on lands managed by the Forest Service in accordance with the Travel Management Rule, then it's true. However, in the context of the entire paragraph from which the quote is taken, that sentence does not appear to explicitly indicate that.

Claim **#2.** *"The nature of the conflict would most likely be an increase in e-Bike riders approaching from behind and wanting to pass. While promoting trail ethics to slow down, be friendly and announce your presence could help, there is not 100% compliance with this practice, and the fear of being hit, having to frequently look over one's shoulder or move off the trail to facilitate passing on a narrow trail reduces the enjoyment of the experience."* - quote taken from the **"Recreation Experience"** paragraph, **"Proposed Action"** subtopic.

The claim that e-Bike riders uniquely diminish the enjoyment of others by approaching from behind and requesting to pass is fundamentally flawed and unfairly targets e-MTB users. This "concern" is not exclusive to e-Bikes - it applies equally to all mountain bikers, runners, and even faster hikers who might overtake others on the trail. Traditional mountain bikers have always approached other users from behind, sometimes startling them, yet this has not led to widespread condemnation of all cyclists as a disruptive force. To single out e-MTB riders as the primary culprit of conflicts is not only misleading but also perpetuates a stereotype that portrays them as reckless and inconsiderate. This caricature is both insulting and baseless, as courtesy and respect are traits of individual riders, not the type of bike they choose to ride.

The argument that e-MTBs create a unique burden by making other users feel the need to ***"frequently look over one's shoulder"*** also falls apart under its own logic. Shared trails inherently require awareness of one's surroundings. Whether it's a runner passing a hiker, or a mountain biker navigating around a user, the responsibility to be mindful of others is not a new or e-Bike-specific phenomenon. The idea that the presence of e-MTBs would suddenly introduce an overwhelming sense of fear is entirely unfounded. If this were truly an unbearable issue, mountain bikers would have already rendered trails unusable for slower users long before e-MTBs entered the conversation.

The rhetoric surrounding this claim implies that e-MTB users lack moral values or regard for others' well-being - a grotesque and offensive generalization. The reality is that responsible e-MTB riders, like all conscientious outdoor enthusiasts, prioritize safety, shared enjoyment, and proper trail etiquette. It is deeply hypocritical for trail users to frame themselves as victims while ignoring the fact that situational awareness has always been a fundamental part of outdoor recreation. If a person finds themselves constantly startled on a trail, perhaps the issue lies more with their own lack of awareness - whether due to inattention, headphones, or an unwillingness to engage with their surroundings - than with the mere presence of e-MTB riders.

This argument does not hold up to rational analysis. It reeks of selective outrage from those who have decided, without evidence, that e-MTBs are a problem. Rather than demonizing a group of riders who simply enjoy the outdoors in a different way, perhaps those making these claims should take a moment to consider whether their frustration stems from a genuine concern - or just an unwillingness to adapt to a changing world.

Claim **#3:** *"E-bikes are increasing in popularity and availability. In 2022, there were 1.1 million e-Bikes sold in the United States, almost four times as many as were sold in 2019 (Business Insider, 2023). E-bikes are the number one growth driver for the bike industry over the past five years. E-bikes were responsible for 63% of the growth in dollar sales of all bicycles between 2019 and 2023 (People for Bikes, 2024). Data from local bike shops also shows a steady increase in e-Bike sales and demand in Jackson."* - quote taken from the **"Need for the Proposal"** paragraph.

With all due respect, this statement does not belong to this discussion, certainly not in the way it's been framed. In the context of trail accessibility, the broad presentation of e-Bike statistics distorts the overall significance of the ongoing advocacy efforts to undo this egregious ban, which is the driving force behind this proposition. Allow me to elaborate this in detail.

While the data on e-Bike sales highlights the impressive growth of the overall e-Bike industry, it is critical to differentiate between the general e-Bike market and the e-MTB sector. E-MTBs, while undeniably a part of the larger e-Bike ecosystem, represent a distinct and highly specialized category within it. By referencing sales metrics, Bridger-Teton National Forest seems to conflate these specialized conveyances with the entire fleet of bicycle-style e-Bikes. This conflation undermines the clarity of this discussion. It is equally critical to emphasize that advocacy groups and enthusiasts who have come forward with the initial trail access propositions are focused exclusively on securing access for Class 1. Throttle-based e-Bikes, which caters to diverse urban uses, have never been a topic of discussion or advocacy within the e-MTB community. This distinction matters because the e-MTB sector has consistently prioritized pedal-centric innovation over those with throttles. It is also this specific sector that has emerged as a leader in addressing concerns related to trail access and sustainability. The advocacy efforts to undo the sweeping bans on all e-Bikes in forest lands have not been led by the general e-Bike industry but by the dedicated e-MTB enthusiasts - open-minded mountain bikers who seek to enhance their experience without compromising the integrity of shared outdoor spaces. This is the sector actively engaging with land managers, conservationists, and other outdoor enthusiasts to educate, advocate, and develop solutions for responsible e-MTB use. The broader e-Bike industry has largely remained silent and absent from these critical conversations, leaving e-MTB advocates to carry the burden of repairing the damage caused by their inaction of the former, even though it wasn't e-MTBs that led towards the national ban being instituted. The e-MTB community stands as the true advocate for change and progress in trail access discussions, despite it being extraordinarily difficult to gain fair consideration. It is they who are doing the hard work to foster understanding, build partnerships, reshape perceptions, and pave the way for a future where technology and nature coexist harmoniously on trails. Let's not overlook that

the initial wave of opposition to e-Bikes stemmed from a lack of nuance, fueled in part by the general e-Bike industry's failure to proactively address community's concerns. Do not give undue credit to those who stand by the sidelines, and highlight general sales metrics when they've done nothing to rectify the predicament they got the e-MTB sector into. Bridger Teton should instead focus on recognizing and supporting the efforts of those who are genuinely committed to this cause.

Because of the way this discussion is framed, including the examples of e-Bikes pictured in the DEA, it is abundantly clear that Bridger-Teton National Forest continues to view e-Bikes as a singular, monolithic entity, failing to distinguish between the vastly different subcategories within the broader e-Bike market. This reductive perspective fundamentally undermines the core issue at hand: the specific advocacy for pedal-assisted Class 1 e-MTBs and their rightful place on single-track trails. Instead of honing in on the realities of off-road e-MTB use, the analysis presented in the Draft Environmental Assessment (DEA) relies on sweeping generalizations that do not reflect the nuances of this debate, misdirecting attention and misrepresenting the actual concerns that should be addressed.

Take, for instance, the statement: ***"The increased speed of a Class 1 e-Bike could also impact the overall handling of the bike itself and could increase potential crashes."*** This claim distorts the true mechanics of trail riding. Speed on technical terrain is not dictated by the machine itself but by the rider's skill, confidence, and the dynamic nature of the trail. No amount of pedal assistance changes the fact that riders must actively navigate obstacles, adjust their body positioning, and respond to unpredictable trail conditions. This is not urban commuting; this is mountain biking, where every rider - e-MTB or not - must operate within their ability level. The very research referenced in the paragraph from which the quote is taken (Really Good E-bikes, 2024) pertains to paved-path studies and does not account for the vastly different dynamics of off-road riding.

Then there's the weight argument: ***"An average full suspension mountain bike weighs about 30 pounds and e-Bikes typically weigh between 40 and 70 pounds depending on the model."*** This again reveals a fundamental misunderstanding of e-MTBs. Yes, the broader e-Bike market includes models that weigh 70 lbs, but these are irrelevant to the discussion of Class 1 e-MTBs, which rarely exceed 50 lbs - even dating back to the earliest models a decade ago. Ironically, the same DEA acknowledges that ***"the era of heavy e-Bikes is giving way to a new generation of lightweight models,"*** which is particularly true within the e-MTB sector. Knowingly or not, you have featured one in Figure 6 of the DEA: Specialized Turbo Kenevo **SL** 2 - a **S**uper **L**ightweight Class 1 e-MTB that embodies the modern trend of pedal-centric e-Bikes. This bike, by the way, features a mid-drive motor from Mahle, a brand that strictly adheres to mountain biking principles and is explicitly designed to be incompatible with throttles or modifications that would change its fundamental nature. Its peak power output is just 320 Watts - almost half that of my full-power Specialized Turbo Levo - both of which remain fully compliant with Class 1 regulations. How can these facts be acknowledged in one section while being contradicted in another?

Further, consider the statement: ***"E-bike riders will typically appear to not be pedaling or not pedaling as hard and will be more upright while riding."*** This is a clear example of applying

general e-Bike riding behaviors to an entirely different riding style. Casual e-Bike riders using commuter or cruiser models may fit this description, but e-MTB riders do not. Just like traditional mountain bikers, e-MTB riders maintain an active riding posture: standing on the pedals while descending, adjusting weight distribution for technical sections, and applying continuous pedal input while climbing. There is no resemblance between how an urban e-Bike rider behaves on a multi-use path and how an e-MTB rider engages with backcountry terrain.

Another misleading claim states: ***"In the past, full suspension e-Bikes were typically only made as Class 1, yet newer models are now made in all three classes."*** While the first part of this statement appears to be accurate, the second half implies that reputable mountain bike manufacturers - those who pioneered and continue to refine e-MTB technology - are now producing Class 3 e-MTB models. That is categorically false. The companies introducing Class 3 full-suspension e-Bikes are not the same ones that have shaped the evolution of genuine Class 1 e-MTBs. The leading mountain bike brands - the ones the DEA also mentions: Cannondale, Transition, Trek, Santa Cruz, Canyon, and Specialized - have deep roots in this sport and maintain a commitment to responsible trail riding, and do not produce Class 2 or Class 3 e-MTBs. All of them produce exclusively Class 1 e-MTBs. None of those brands have indicated any intention of shifting towards other classes, especially Class 2, because such a move would contradict the very ethos of mountain biking. This is an ethos that lesser-known brands do not relate to, precisely why we keep seeing models popping up from these brands that are out of touch with the reality of mountain biking.

Another indication that Bridger-Teton National Forest views e-MTB through a reductive lens are studies frequently cited in the DEA. These documents largely focus on urban e-Bike use and generalized market trends, but do not provide any meaningful insight into the realities of mountain biking. The discussion we're trying to have here and those studies reach very different conclusions. It is imperative that this conversation be reframed to acknowledge the work being done by those who are actually invested in solving these issues, rather than perpetuating a narrative that conflates e-MTBs with the rest of the e-Bike industry. This is why broad e-Bike sales metrics are irrelevant to this discussion. They paint a misleading picture that suggests the general e-Bike market plays a major role in this advocacy when, in reality, it is only the e-MTB sector - pioneered by enthusiast mountain bike riders - that is working to establish a future where responsible e-MTB use is recognized and fairly integrated into trail policies.

All of these examples point to a single, undeniable issue: this discussion has been framed around a fundamental misunderstanding of the e-MTB sector and what it represents. By lumping e-MTBs into the broader e-Bike industry, the DEA shifts focus away from the key issue at stake - trail access for responsible riders, using their non-throttled pedal-assisted e-MTBs. The general e-Bike industry has done nothing to address the concerns raised by land managers, conservationists, and other trail users when e-Bikes first entered the conversation. Instead, they stood idle as misconceptions took root, leaving the e-MTB community to shoulder the burden of undoing the damage caused by their negligence.

By continuing to apply a reductive lens to this issue, the analysis in the DEA misrepresents the real discussion. This is not about whether all e-Bikes belong on trails; it is about whether responsibly used, pedal-assisted Class 1 e-MTBs - designed specifically for mountain biking - deserve fair consideration. Until that distinction is made clear, the conversation will remain muddled by misinformation, and the efforts of those genuinely advocating for responsible e-MTB access will continue to be overshadowed.

Claim **#4** "*Additionally, online investigation of some of the larger bike companies selling e-Bikes, such as Cannondale, Trek, Santa Cruz, Canyon, and Specialized, found that the class of the e-Bike being sold is not obvious in the marketing nor easily determined in the specifications. Very few e-Bikes even list the top speed, which is one of the defining differences among classes. Consumers could easily not know what class of e-Bike they are purchasing and unknowingly bring a Class 2 or 3 e-Bike onto the trails.* " - quote taken from the **"Difficulty with Allowing only Class 1 E-Bikes due to Similarities between Classes"** paragraph.

The claim that it is difficult to determine the class of e-Bikes sold by larger companies like Cannondale, Trek, Santa Cruz, Canyon, and Specialized, yet again reflects a lack of understanding of both the e-MTB industry and its advocates. These companies are leaders in the e-MTB space and have long been at the forefront of e-MTB advocacy efforts, promoting responsible trail use and ensuring e-MTBs they produce strictly adhere to the Pedelecs standard. Their products in the e-MTB category are exclusively Class 1, meaning they employ mid-drive units that only function as pedal-assists, with no throttle, and have their speed limited to 20 mph.

While it may appear that these companies do not explicitly indicate the class of their products in the marketing materials, this observation doesn't account for the broader context of their business practices and target audiences. First, these companies operate in a global market where classification systems, such as the U.S. Class 1, 2, and 3, are not universally applied. In much of Europe and other regions, e-Bikes are classified as Pedelecs, a category that aligns closely with the U.S. Class 1 definition. Therefore, their marketing materials are often designed to appeal to a global audience, where including U.S. specific classifications may not always be practical or relevant. I agree, this approach can create confusion for United States consumers unfamiliar with the broader e-Bike market, however, this is not indicative of negligence or an attempt to mislead. E-Mountain Biking is still a niche - a sport that's very attractive to enthusiasts with mountain biking backgrounds. The target audience for e-MTBs is typically comprised of individuals who are well-informed of the technical specifications and intended use cases of the bikes they consider. Unlike generic and lesser-known e-Bike companies, the larger brands always provide product manuals on their websites, allowing potential buyers to identify whether a bike fits their needs. Most buyers extensively research their next e-MTB option, leveraging detailed third-party reviews, video content, and insider advice to ensure they choose the right bike. Given the significant cost of e-MTBs from these high-end brands, these purchases are not made casually or without a clear understanding of the bike's capabilities.

While it's true that more explicit marketing for the United States consumers could alleviate potential misunderstandings for new consumers, the assumption that ***"Consumers could easily not know what class of e-Bike they are purchasing and unknowingly bring a Class 2 or 3 e-Bike onto the trails."*** is inaccurate. Allow me to elaborate this in detail. One of the most compelling advantages that larger, reputable e-MTB manufacturers offer is the widespread availability of their products in bike shops and retail stores, where potential buyers can see, touch, and even test ride them before making a purchase. Unlike generic and lesser-known e-Bike brands that primarily sell online, larger companies like Trek, Specialized, Santa Cruz, and Cannondale have extensive dealer networks, ensuring that their Class 1 e-MTBs are accessible for in-person evaluation. This is critical because, as humans, we are naturally drawn to tangible experiences - seeing and feeling a product in real life generates excitement and confidence in a way that no online listing ever could. For a consumer specifically looking for an e-MTB to ride on trails, the most logical choice is to visit a local bike shop, where they can not only assess the bike's fit, feel, and build quality but also confirm its classification firsthand. Even if the marketing materials online don't always make class distinctions explicit, this information is clearly labeled on the bike's frame, making it impossible to overlook during an in-person purchase. Bike shop staff, who are also well-versed in local trail regulations and e-MTB classifications, provide additional assurance by guiding customers toward compliant models. Given these factors, the concern that consumers might "unknowingly" purchase the wrong class of e-Bike for trail use is largely unfounded when dealing with established brands sold through reputable retailers. The in-store buying experience serves as an additional safeguard, ensuring that those who seek singletrack-legal e-MTBs make informed decisions, reinforced by hands-on experience and expert guidance. On the other hand, if someone willfully chooses to bypass this process and instead commits to purchasing a non-compliant bike online - despite the availability of compliant options at reputable retailers - it speaks volumes about their commitment towards responsibility. Such an individual would not be representative of the advocacy efforts put forth by responsible e-MTB riders who prioritize compliance, trail stewardship, and coexistence with other trail users. In the broader context of responsible riding, the vast majority of e-MTB enthusiasts are respectful, informed, and committed to upholding trail access through responsible behavior. It is unjust to allow the actions of a small, noncompliant minority to dictate restrictive policies that punish the overwhelming majority of conscientious riders. Trail access decisions should be based on facts and the demonstrated responsibility of the greater e-MTB community - not the isolated behavior of a few outliers.

In conclusion, the investigation referenced in the original paragraph appears to be uninformed about the e-MTB market, its global dynamics, and the consumer behaviors of its enthusiasts. Rather than casting doubt on the intentions of leading e-MTB manufacturers, we should acknowledge their role in giving birth to this enhanced experience, maintaining its pedal-centric integrity, and advocating for responsible use on trails.

Jackson Hole Mountain Resort

Keeping this part local, Class 1 e-MTBs are allowed on designated cross country and multi-use trails on Jackson Hole Mountain Resort. Additionally, as of July 2022, Class 1 e-MTBs are allowed on Sweetwater and Teewinot lifts, and permitted for downhill use anywhere in the bike park for ticketed riders. I am among those who have been riding these trails every weekend during the 2022, 2023 and 2024 Summer Seasons, and I am pleased to report that I have encountered no issues or confrontations with anyone on the trails. In fact, I was pleasantly surprised to see such widespread support for them. I wasn't the only one riding an e-MTB; I learned that the Patrol also utilizes this efficient conveyance to navigate the bike park quickly. Needless to say that it sparked my curiosity, leading me to inquire about it with the Patrol. I received multiple responses, most of which revolved around accessibility for adaptive athletes. However, the most intriguing answer centered on accessibility for emergency responders, particularly for accessing remote or difficult-to-reach areas where time is of the essence. This aligns with the privileges granted to Teton County Search and Rescue, which upon request is authorized to utilize e-MTBs for rescue missions in the Bridger-Teton National Forest, an area where public e-MTB use is currently prohibited. That explanation resonated with me. Resorts that lease the land from National Forests typically do not become the superintendents of the area, nor do they have sole authority to decide who and what has access to the lands, even with obtaining a special use permit. The U.S. Forest Service retains overall jurisdiction and management authority over the leased land. So, it had to be Bridger-Teton National Forest who ultimately permitted e-MTBs on trails for first responders and bike park riders. This is a clear indication to me that Bridger-Teton National Forest is very much capable of being progressive, yet is cautious and strategically selective with who deserves that privilege the most.

The mere fact that Jackson Hole Mountain Resort is allowing e-MTBs on all trails might be the strongest argument against there being conflicts caused by their presence. Some may suggest that it is because those trails are mountain bike specific, and I did not factor in the absence of hikers and equestrians. They might be right. However, I am not using that fact to dismiss the argument. I am using it to show that it has real effects. People are less likely to throw unsolicited and provocative remarks in your face when they see that a prominent authority is at the forefront of accessibility. I am certain that we will observe a similar effect on people if this proposition passes. Consider, for instance, the issue of current illegal riding: poachers face confrontation only when they are out on the trails, with minimal interference at the trailhead or within town limits. Every single confrontation is solely based on the legal status of e-Bikes on NFS trails. By legalizing Class 1 e-MTB access, a significant portion of those confrontations, if not all of them, can be effectively neutralized. This approach dismantles dissenters' self-entitlement, stripping away the justification to take matters in their own hands and enforce restrictions they have no authority over. No longer will there be confrontations revolving around assertions like "CAN'T RIDE E-BIKES HERE!". Resolving any other conflicts that may arise at that point becomes a matter of private affair, as the discourse shifts from contentious confrontation to personal resolution. Again, I do not advocate for wielding authority as a blunt instrument to silence outspoken individuals, I would never breach my moral values and permit myself to demonstratively shut anyone down. That's not how you build yourself

up. What I'm saying is that by approaching it with diplomacy, it's undeniably effective. Jackson Hole Mountain Resort proves that by allowing them on single-track trails, where they do not cause any problems or confrontations. Even if the resorts' motivation is deeply rooted in a strong desire for monetary gain rather than having our best interest at heart, the idea that one should not or cannot stand for something simply because it just so happens to benefit oneself at the same time, seems ridiculous to me. Positive outcomes far outweigh the negative connotations that come with this proposition, if there were any legitimate negatives to begin with.

In any case, I am glad that both parties are displaying signs of rational thinking and are permitting this beautiful conveyance to play a big role as a fun outlet for exercise and rescue missions, suggesting that in controlled environments, e-MTBs are seen as an asset rather than a threat. I am also sure that Jackson Hole Mountain Resort keeps a track record of their experience regarding e-MTB usage on the trails. Given that Jackson Hole Mountain Resort is leasing the land from Bridger-Teton National Forest, I don't see why they would not share that wealth of knowledge with you.

Local Media

In today's fast-paced digital world, most people no longer engage with articles the way they used to. They skim headlines, glance at an image, and subconsciously form an opinion - often within seconds. It's a rapid mental process that links a few choice words and a single image to a much larger narrative. This is especially concerning when the subject is much more complex, like e-MTB use on public lands. Should this proposition pass and the contents of the press release are not worded carefully, it is going to be a black eye for the e-MTB community and land managers. Local media outlets will certainly report on this story. So, it's critical to be precise and not to give them any reason to misinterpret and exacerbate the news. Although it is impossible to eliminate editorial bias with 100% certainty, efforts need to be made on Forestry's part to avoid potential misunderstanding. Medias' headlines must reflect reality, not exaggeration, and their images should convey balance rather than alarm. The subtle messaging in just a few words and poorly chosen photos can make this situation seem like mayhem. It only takes a second for the readers to subconsciously link headlines and images together and start visualizing it. Here is a perfect example of that:

Can we live with electric mountain bikes on trails?

In their noble pursuit of journalistic integrity, Jackson Hole News & Guide editors picked the worst possible image to accompany the title of their article. There are 2 major red flags with that image. First and foremost, the featured image depicts Class 2 cargo e-Bikes - an entirely inappropriate and misleading representation of the article's subject matter. These bikes are worlds apart from what e-MTBs actually are. Unlike e-MTBs, Class 2 cargo e-Bikes are designed for urban utility and transportation, they are not suited for single-track trails. Moreover, cargo e-Bikes have never been a topic of discussion or advocacy within the e-MTB community, further illustrating the disconnect between the image and the article's content. The article also fails to clarify the rationale behind this

image selection. Despite the reporter's commendable insights into e-MTBs - none of which are visually represented in the article - the image description offers no explanation as to why a cargo e-Bike was chosen.

Secondly, if you look closer at the associated image, you will find a hidden message that reads "CHAOS". It's a calculated choice, reaffirming my suspicions that the image was deliberately selected for the sole purpose of evoking negative connotations. If Jackson Hole News & Guide knowingly leaves its associated image unchanged after publishing the story, and receiving multiple criticisms, then I believe they are willfully participating in misinforming or attempting to misinform the general public who may not be aware that there's much more to the specifics than what meets the eye. I find it particularly concerning, because many of its readers lack the nuanced understanding necessary to differentiate between various e-Bikes. To this day, people are convinced that e-Bikes are a monolithic category without understanding the distinctions within. And, given that most of the Jackson Hole News & Guide audience does not have a subscription to read articles in full, you can see how easy it is to misinterpret the message of the article, without reading a single word of text. Those who read headlines and jump to conclusions are less likely to change their minds even if they are presented with accurate information later down the line.

Side observation: The mere fact that people are still under the impression that this proposition is about allowing the same e-Bikes that the town of Jackson is having trouble with, is proof that most of them downright ignore the details and choose to run with the title, along with their mouths. Had they read the supporting documents for this proposition, they would have known that this project proposes to allow access to the only class of e-Bikes that is similar in behavior and performance to the type of bikes that are already allowed to ride on trails. Had they read the supporting documents of this proposition, they would have understood that the climate of users who are seeking true single track experience using their e-MTBs is not the same user base that the town of Jackson is experiencing difficulties with. Not reading a single word of text and going in with the headline makes people assume matters rather than understanding them.

With that said, if this proposition passes, it would be best for everyone if words such as "E-BIKE" and "MOTOR" were omitted from the press release or used as few times as possible. Instead, the wording should be focused solely on "Class 1, non-throttled, e-Mountain Bikes (e-MTBs), pedal-assist, mid-drive, and e-Drive". It is not a secret that when advocating for responsible e-MTB use, I often try to refrain from using the words "E-BIKE" and "MOTOR". The reason for that is because these words are primarily used as generic terms to refer to a very wide spectrum of conveyances that people directly associate with, the most common of which are motorcycles - a type of motor vehicle that has very different regulatory requirements than those for e-MTBs. Whereas using terms such as "e-Mountain Bike" or "Pedal-Assist" is more about disassociating from the stigma of bicycle-style e-Bikes that often winds up being perceived as motorized machinery. I have learned that lesson in the past when I was trying to create reasonable discourse with people about e-MTBs, what components they are made of, and what's involved in operating them. It is incredibly efficient to maintain conversations with curious minds when refraining from using trigger words. In contrast, whenever I presented them with words that set off their preexisting bias, I would lose their attention

in a roll of an eye. I understand that there is a layer of complexity here. People naturally gravitate towards displaying signs of healthy skepticism whenever someone is pitching their ideas. Not everybody has the will or patience to be lectured about new things, nevermind a whole new category. People will listen to what you have to say for about 30 seconds and at that point they'll subconsciously either choose to lean in or hold back. When we already believe the world to be a certain way, then we interpret new experiences to fit with those beliefs whether they actually do or not. You don't even think further once you already believe it's true and consistent with your past experiences. The point is that reading strategically manipulated news can color people's perception. News outlets are known for having inherent biases due to their editorial stance, which can manifest in framing, omissions, and language choices, shaping how readers interpret local developing stories. When important context or alternative viewpoints are omitted from news coverage it leads to a skewed understanding of complex issues. Another prominent example is the recent coverage of this very proposition, in which Jackson Hole News & Guide conveniently neglected to report on the primary beneficiaries of this proposition and the types of e-Bikes the Forestry is proposing to allow. While they mentioned Class 1 in their article, it was vaguely thrown into the mix without any further clarification. There was no distinction made between the classes, there was no clarification as to why 1 was chosen over the others, no reference to e-Mountain Bikes, and no mention of experienced mountain bikers who would benefit from this proposition passing. These distinctions I believe would have significantly impacted the discussion. But No! Jackson Hole News & Guide have graciously decided to spare their readers the burden of enlightenment. Heaven forbid they might accidentally educate someone along the way. Now factor in the disdain for e-Bikes that many may already have, and you can clearly see why we still have groups of people who are vehemently against this beautiful conveyance, while not knowing anything about them. This is why trigger words such as "E-BIKE" or "MOTOR", I believe should only be used when necessary or not used at all. Focusing on the "e-Mountain Bike", "Non-Throttled", and "Pedal-Assist Technology" aspects of the press release could enhance local media to report on this developing story with fresh perspectives, provided their environmental reporters have any integrity left. This could also give readers an opportunity to learn about e-MTBs without the negative associations of the word "e-Bike" that often comes with simply reading it. The aim of this approach is not immediate victory, but rather progress. It's all about creating space that lets people know that it is okay to change your mind when new and accurate information comes to light.

Enforcement

Some mountain bike riders argue that e-MTBs "dilute the purity" of the sport, seeing it as a departure from the traditional experience. This stance reflects an elitist and gatekeeping mentality, where only certain participants or technologies are deemed "worthy" of the sport. I hate to draw this ridiculous comparison, but firmly standing by the idea that e-MTBs are "diluting the purity" of the mountain biking sport, share traits and similarities with extreme ideologies. While not entirely equal to the extreme parts of those ideologies, it reflects a similar rigidity that discourages inclusivity and

adaptability. If we strip away the extremities and focus on the underlying principles of exclusion and purity, there is a similarity in terms of mindset. Both attitudes share a desire to preserve an idealized "purity" by rejecting what is perceived as foreign, different, or threatening to tradition. In the case of mountain biking, those who argue that e-MTBs dilute the sport's purity are, in a sense, creating a boundary between what they deem to be the "real" experience and those who don't conform to that standard. This exclusionary thinking fosters a sense of superiority, particularly when it manifests in an "us versus them" mentality. These subtle traits lead to discrimination, elitism, or judgmental attitudes, even in less consequential settings like outdoor sports.

That being said, if there is no dedicated enforcement, members of the public will put themselves in charge of policing and take matters in their own hands. Self-appointed authority knows no boundaries and has tendencies that bring out the worst aspects of their personality, such as getting ego boosts from kicking out and holding down individuals they do not relate to. Given that aspect, verbal abuse can escalate to physical violence if spirits are not contained. As a result, property damage as a form of punishment for not complying with demands can occur. Although it would be best if no conflicts ever happened, regardless of who would be identified as the aggressor, efforts need to be made to prevent and address such offenses and misconducts. I fully acknowledge that some misbehavior may occur when or if this proposition passes. Strategically loosened restrictions in one area, yet still active everywhere else, may embolden individuals to continue breaking the rules, believing they're simply making a stand against what they view as unfair reevaluation. When, or if such incidents occur, and someone's caught riding any e-Bike other than a legitimate Class 1, or an e-Bike in prohibited areas, I urge Bridger-Teton National Forest to address the actions of the individuals responsible for misconducts, rather than placing blame on their means of transportation. The bike is merely a tool and should not be blamed for the actions of its rider. e-Bikes, like any other inanimate objects, do not have the capacity to commit offenses on their own. It is the rider who must be held accountable for their actions, not their mode of transportation. Holding the individual accountable for their behavior ensures that justice is appropriately administered and that the tool itself is not unfairly maligned.

At the end of the day, it is expected that only those familiar with Class 1 e-MTBs and experienced in handling challenging terrain will be out on the trails. Even if this proposition moves forward with Alternative 1, where all 3 classes would be allowed, I am confident that Class 1 would be taking the spotlight, with very little to no other classes using the trails. Allow me to elaborate in detail why. The user base of e-MTB enthusiasts who seek a genuine single-track experience is significantly different from the user base that the town of Jackson is having difficulties with. It's highly unlikely that the teens who are often zipping around on their Class 2 e-Bikes will be venturing onto trails. Unlike e-MTBs, their e-Bikes aren't suited for true off-road technical terrain. Without adequate suspension these bikes would provide a jarring and uncomfortable ride, and would discourage anyone from continuing to use them in such conditions. They are decently suited for general riding on paved roads, but greatly limited in off-road potential, particularly on steep inclines where they struggle to provide assistance, let alone continuously sustain it. The same is true for Class 3 e-Bikes. This class is mainly adopted by road and trekking bikes. They come equipped with thin wheels, slick tires with

minimal tread, and feature no active suspension to absorb the bumps. E-Mountain Biking is a very niche sport, only enthusiasts will show interest in picking it up and riding the trails, making it unlikely that the casual riders on Class 2 or Class 3 e-Bikes would find themselves drawn to the trails. I am confident in this because of the people who came forward with this proposition. It was initiated and is supported by e-MTB enthusiasts and open-minded mountain bikers, myself included. While it wasn't the direct fault of e-MTBs that caused all e-bikes to be banned from the forest, it is this specific subsector of the e-Bike industry that now bears the weight of undoing the damage. It is not the general e-Bike industry at the forefront of this advocacy. It is specifically the e-MTB industry, which is pioneered by mountain bike riders who wish to enhance their biking experience and are committed to responsible e-MTB use. We all have a vested interest in seeing this proposition pass and remaining effective. Also, the requirements of trail riding, such as maintaining control with both hands on the handlebars and paying close attention to the path ahead, makes it less appealing to those who are frequently spotted with their phones in hand while riding on bike paths. They've got Instagram reels to chase, not the thrill of the downhill. This trend alone makes it unlikely that youngsters would be riding the trails. If any young athlete would be interested in riding e-Bikes on trails, they would much rather choose dedicated and mindfully designed e-MTBs for young people.

When it comes to addressing the issue of regulating which types of bicycles are allowed on the trails, I believe that updated signage would be highly effective. Currently, the restriction sign at each trailhead reads, "**NO E-BIKES, NO PEDAL ASSIST**". I propose revising it to say, "**NO E-BIKES, YES PEDAL ASSIST.**" This change would clearly indicate that pedal-assisted bikes are permitted, while other e-Bikes are not. In addition to this textual update, I suggest creating a new visual sign that emphasizes the engagement type of Class 1 pedal-assist bicycles, specifically highlighting the presence of the mid-drive unit. Existing signs, which encircle the letter "**e**" within the rear wheel, closely resemble Class 2 throttle-based e-Bikes that have motors installed in the rear wheel hub. This similarity can cause confusion. To address this, Forestry could develop a new logo and branding that visually differentiates pedal-assist e-Bikes from fully motorized e-Bikes. An alternative sign could display a lightning bolt logo positioned in the middle of the bike, indicating the presence of the mid-drive unit and, by extension, pedal-assist functionality. This clear visual distinction would help trail users quickly understand which types of bicycles are allowed. To further enhance this initiative, incorporating a QR code directly under the updated signs could also be beneficial. Upon scanning the QR code, the webpage would explain the significant differences between e-Bikes and pedal-assist bikes, highlighting the rationale behind permitting one while restricting the other. As I have previously mentioned, people tend to engage more with visual content than text alone. Therefore, incorporating photographs that show which types of e-Bikes are allowed and which are not could significantly enhance public understanding and compliance. These photographs would serve an educational purpose, making it easier for trail users to identify compliant bicycles at a glance. Perhaps, the dedicated posts that currently hold the restriction signs could be repurposed and have it feature all of the aforementioned suggestions. Friendly reminders of trail etiquette and other e-MTB apprenticeships would also be excellent additions.

Conflict Mitigation

Benjamin Franklin was wrong when he said: “In this world nothing can be said to be certain, except Death and Taxes”. He certainly forgot to say, “and Trail Conflicts”. When differences clash, they often lead to conflicts, especially if individuals are intolerant to diversity. New ideas often challenge the status quo, leading to resistance from those who benefit from or are comfortable with the current state of affairs. When people perceive a situation as unfair or unjust, they are more likely to become involved in conflicts to rectify what they see as being wrong. Competition over limited territory is also a leading cause of conflicts. When resources are scarce, people or groups may start a fight over who deserves access the most. Fear of the unknown or mistrust of others also leads to conflicts. Confrontations are a natural part of human interaction whenever they feel threatened. Everyone has prejudice in their lives and in the way they view things, and I am by no means immune from that. As modern day people, it is our ethical obligation to identify these traits in us and work on taming them. Many conflicts escalate because parties involved do not have problem solving abilities to effectively mitigate those conflicts. The inability to contain our most immediate emotions is perhaps our weakest weakness. This is where apprenticeship is needed.

Embracing the age-old principle of treating others as one wishes to be treated, trail users can navigate their journeys with reverence for the experiences of others. If we desire respect for our chosen paths, we must extend the same courtesy to our fellow recreationists. In the pursuit of a harmonious trail experience, virtues such as patience, tolerance, and kindness must become our guiding stars. Continuous self-improvement is key to amicably resolving conflicts. Promoting diversity, equity, and inclusion in outdoor spaces is essential for fostering a sense of belonging and ensuring that everyone can enjoy the realm of the outdoors. Trails, as shared spaces, necessitate a social contract wherein users agree to abide by certain rules and norms. This implicit agreement forms the foundation of peaceful coexistence. Upholding this contract is not just a legal obligation but a moral one.

Cache and Game Creek

While I support the idea of ***“purposely starting small with an interest in learning and adapting over time”***, I disagree with one aspect of it: the decision not to include the Cache and Game Creek. These areas were very much anticipated to be the highlight of this proposition. Unfortunately, they weren't even acknowledged. I have downloaded the new attached project documents and during the study I still could not find any indication as to why the Greater Snow King area was excluded from this proposition. I am inclined to assume the decision was made solely on the premise that the area is in very high demand. Consequently, there is concern that adding e-MTBs into the mix would further exacerbate the congestion in an already heavily utilized area.

That might not be entirely accurate. With this proposition potentially passing, many mountain bikers who are already using the trail systems may be inclined to transition to e-MTBs due to several

factors. As technology continues to improve, e-MTBs become lighter and have longer battery life. The leap in battery and drive system designs has enabled the development of medium-power e-MTBs that weigh under 45 pounds, with some lightweight, low-power models even approaching the 40-pound mark. These numbers alone make them more appealing to riders who were previously deterred by the weight and limited range of earlier models. Ladies, for example, would find low-power models more appealing due to their manageable weight and refined ergonomics. While men often lean toward full-power models for their robust capabilities, lightweight and medium-power e-MTBs are becoming the go-to choice for those who look for short rides after work or a balanced approach to fitness. Many locals also work 9 to 5 jobs in the Jackson area, and at the end of the day an e-MTB equipped with pedal assistance could make a big difference to people who might struggle catching up with the remaining daylight, a factor that would otherwise discourage people from getting out. Naturally, the number of recreationists is expected to grow as this sport will inevitably bring new people in the long run. However, it won't happen overnight. As is the case with any novelty, there might be a temporary spike in interest for a few weeks that will gently fall back once the initial excitement dies down. After that the number of bikes on trails, be that regular or e-MTBs, is expected to remain more or less the same. Growth is inevitable. Therefore, it needs to be met with the same energy. Compelled by their expanded possibilities, riders might be incentivized to get out more often, cover longer distances, explore more trails and ride for a more extended period. Best solution is dilution here. Just a few years ago the Trail Project was concluded, and we haven't heard anything from Bridger-Teton National Forest in regard to that development. I believe this project is long overdue and should also be revised along with the Forest Plan. As someone who wants to be a member of this community, I'd be more than happy to contribute my time and resources to help and build new trails. Many Miles = Tons of Smiles! :)

The concern that allowing e-MTBs on single-track trails will flood these areas with inexperienced riders and degrade the quality of the experience for others, is overstated and fundamentally flawed. Every mountain biker, no matter how skilled they are today, was once a beginner. They've had their first time on a trail, their first encounter with trail etiquette, and their first moment of learning to respect these shared spaces. It's a process of education and experience. To assume that newcomers on e-MTBs are inherently less capable of learning than those on traditional bikes is simply unfair. This assumption has no more merit than suggesting that any new mountain biker is incapable of following rules or respecting other trail users, simply because he or she is a beginner. This argument falls apart under its own logic.

The Greater Snow King area is not a competitive setting. It's a recreational one. Since trails are often shared, each trail user, be it a hiker, biker, or equestrian, is expected to encounter other participants at any given time. Needless to say that common courtesy not to endanger self and the safety of others should be everyone's priority. This is an essential quality that is inherent to respectful human beings. Hate to break it to you all this way, but as an e-MTB rider, I also have that sense of common courtesy, much like the majority of others participating in outdoor activities. Douchebaggery is not a quality that comes with the purchase of an e-MTB, I have checked my receipt. I am not a spiteful hooligan who has no moral values, and I certainly am no reckless individual with no regard for the

well-being of others. I assure you, my interests and actions are not driven by a desire to disrupt or cause harm, to either you or your cherished trails. Like most e-MTB riders, I hold respect for the land and those who share it.

There's an irony in the fact that those who oppose the presence of e-MTBs in natural settings often do so without understanding who we are and what we seek. While I can't invalidate their past experiences regarding e-Bike riders, it's disheartening that they choose to weaponize their grievances to justify maintaining bans on e-MTBs, while willfully ignoring the fact that thousands of e-MTB enthusiasts across the nation are responsible stewards of the land who ride with mindfulness and adhere to trail etiquette. Admittedly, there are some e-Bike riders who deserve the predicament they get themselves into. But that's beside the point. There are bad eggs that will give any sport a bad name. Privileged trail users, for example, can be just as irresponsible and disrespectful. Just as there are more responsible and respectful e-Mountain Bikers than irresponsible ones. It is beyond important to acknowledge that and call out the bad actors who spew discredit head on. Bad actors have been able to exploit the lack of pushback in their attempts to slander e-MTB riders and continue to do so to this day. When these perspectives are shared without ever being questioned, then others start believing them. Let's not fall for their attempts to rile everyone up from inside.

To further enhance the overall user experience, reduce conflicts and safety concerns, and improve the flow of traffic, a one-way system could also be considered. One-way single-track trails are essential for creating a harmonious and enjoyable outdoor experience, especially in the context of mountain biking, be that assisted or not. With everyone moving in the same direction, it facilitates a sense of purpose. A one-way trail system can alleviate misunderstanding by creating clear expectations about how the trail is to be used. Strategically designating new single-track trails as one-way - or the existing ones for that matter - would dramatically improve the flow of traffic, allowing users to be more present and enjoy their surroundings without having to stop or maneuver around others as frequently. This still doesn't take away the fact that people must exercise caution at all times. They do! Nobody's immune from surprise encounters. This approach would only foster a more cooperative and peaceful trail environment where everyone can enjoy their time without the disruption caused by opposing traffic. Also, on two-way trails, users moving in opposite directions must frequently stop, pull off the trail to let others pass, leading to path widening as people step outside the designated widths. One-way trails eliminate that need, thus keeping the single-track trail as narrow as originally intended.

Along with all of the above, mountain bikes are already allowed on single track trails regardless of their specification, size and weight. I am sure we all understand that trail degradation is primarily caused by riders overusing their brakes on downhill sections, either due to excessive speed before turns and obstacles or by riders riding in inappropriate, muddy conditions. e-MTBs and mountain bikes have nearly identical impacts on trails in that regard, given that both use identical resources such as gravity, momentum, brakes, and one contact point on each tire tread. When it comes to prebuilds, there is more overlap than there is variance by a substantial amount. e-MTBs share DNA with mountain bikes, where manufacturers often use nearly identical components to spec their products. Rider attitude is the key factor in trail wear, not rider's conveyance. If anything, modern

day e-MTBs are even more efficient in addressing soil wear and displacement, given that higher end models now come with advanced traction control systems to avoid skidding while pedaling or braking under load.

Restricting access to the trails in an attempt to prevent potential accidents strips away the essence of personal freedom. Exposure to potential danger is a factor that each and everybody must consciously assess before heading out to the trails. It is up to individuals to understand and accept accountability for their actions, exactly the way Forestry suggests; “You are responsible for your own safety.” Besides the guidelines and recommendations to help people make informed decisions about their safety when entering the forest, the decision to engage in such activities rests squarely on the shoulders of individuals. A good example here would be the backcountry access beyond the operational boundaries of Ski Resorts. Each access gate is explicitly marked to warn individuals that crossing those thresholds is their conscious decision. This approach aligns with the broader philosophy of fostering a system that educates individuals without restricting their autonomy. Misfortunes can and do occur, even among the most experienced adventurers. Risk is an inseparable part of engaging with nature. However, the presence of risk does not negate the validity or value of engaging with it. Another good example is the Lithium Trail on the Teton Pass. I have ridden that trail multiple times on my regular mountain bike, and admittedly, just like the backcountry out the gates, it’s at the edge of my comfort zone. It is doable, however, riding my e-MTB on that trail would definitely benefit from a few prayers, which is why I would rather choose not to ride it even if I were legally allowed. I am also not a competitive rider, but rather a recreationist, hence speed is a factor that greatly affects my trail choices. Lithium is one of those trails where diehard downhill riders keep their speed very high, and honestly, I would not feel comfortable holding everyone up. This argument is equally applicable to motorcycle trails. Just as I am legally allowed to ride them today, I choose not to. I do not feel comfortable with being tossed into that fray. In the Cache / Game Creek area, on the other hand, trails tend to be more lenient with hints of flow. Borrowing from the concept of flow, trails offer an opportunity for individuals to fully immerse themselves in the present moment. My face would light up in happiness if I could hop on my e-MTB and experience that joy.

Alternative Proposal

Am I the only one who envisions this as being a matter of “when” instead of “if”? If the answer is YES, may I suggest a more pragmatic approach? How about undergoing Environmental Assessment for both areas at the same time and then temporarily restricting the general public to access the Greater Snow King Area until enough feedback from Phillips Canyon or Tahoe National Forest is collected for further decision making? In the meantime, land managers could use 3 summer seasons' worth of local feedback collected from Jackson Hole Mountain Resort, where Class 1 e-MTBs are legally allowed to ride the same single-track trails as regular mountain bikes, and do not cause any issues or confrontations. I may not be the greatest geologist, but something tells me that the topography and soil type in Phillips Canyon and Jackson Hole Mountain Resort is pretty much the same as in the Greater Snow King Area. Why invest precious time and resources into a similar

process later down the line and potentially waste even more years of joy, when you can do both at the same time? Isn't nearly 9 years of loss already enough?

Excluding the Greater Snow King area from the proposition overlooks the opportunity to implement sustainable measures that could alleviate the strain on its resources while still accommodating the growing interest in e-MTB activities. A good starting point could be allowing e-MTBs to access the least popular trails. Coincidentally, the least popular trails happen to be located at higher elevations, where e-MTBs would have no problem getting to and would stay out of others' way. Admittedly, this is where e-MTB riders want to be in the first place. Skyline, Wilson Canyon, Game Creek, and Cache Creek Drive, with the latter serving as a traverse to get to Game Creek. If it's not too radical of an idea, Cache Creek Drive could also be open for e-MTBs up to the first bridge near the Noker Mine Draw. That road is already open for administrative vehicles and horses, so why not let e-MTBs access it as well? Skyline, Wilson Canyon, Game Creek, are significantly less crowded when compared to daily usage of Cache Creek and not only e-MTB riders could benefit from that, it could also help with lifting the stress off of the trails at lower elevations. This shift will essentially free up bandwidth for the lower elevation, as bikers who currently ride Cache Creek will feel incentivized to hop on an e-MTB and go up higher. Many mountain bike riders secretly support e-MTBs but hesitate to voice this support due to adverse reactions coming back from the National Forest. Given the very limited legal options in the valley, these riders cannot justify the investment in a brand new e-MTB. I know this, because I was one of them. Unlike others, I am a fool who eagerly bought his first e-MTB, after learning from the news that the National Park Service was lifting its e-Bike ban. Convinced at the time that ***National*** Parks and ***National*** Forests were basically one and the same thing, without properly understanding the nuances between the two, I thought the decision to lift the ban in one ***national*** area would automatically apply to the other. I couldn't have been more wrong... Anyway, If Bridger-Teton National Forest adopted a progressive stance on e-MTB accessibility and updated these policies, it would help validate their desire to transition. As a result, more riders who have been secretly intrigued and supportive of e-MTBs would feel comfortable transitioning, knowing that their local Forestry recognizes the value of e-MTBs and is backing the change. This could present a reasonable interim solution for e-MTB riders until they garner moral acceptance within the local community, even if initially it may be met with resistance. This approach could give e-MTBs some time and opportunity to naturalize in an environment where minds are known to be skeptical towards novelty. As people are repeatedly exposed to new ideas, they become less foreign and threatening. They are discussed, critiqued, and increasingly accepted as part of the cultural dialogue. People, one day, will reflect back and realize the thing that they once feared was not the catastrophe they vividly imagined. Sometimes, it takes some contemplation to reconcile with change, advancements and growth.

There is a profound irony in the National Parks and National Forests story. When I first ventured into the world of e-MTBs, I was driven by an overwhelming sense of excitement. My enthusiasm skyrocketed when I learned that the National Park Service had lifted its longstanding ban on e-Bikes. This decision felt monumental to me, as it fulfilled a hope I had carried since the Forest Service first implemented their restrictive policies on e-Bikes back in 2016. In my eagerness, I jumped to the

conclusion that this decision meant I could freely ride my e-MTB not only in National Parks but also in National Forests. At the time, I made no distinction between the two; to me, they were one and the same thing - public lands unified under one overarching ***"National"*** identity. I couldn't have been more mistaken. Because of my oversimplified assumptions I didn't even think these could be 2 distinct agencies serving entirely different purposes. Not only do they operate independently of each other, their policies and philosophies are not cross-applicable either. This oversight was entirely my own. I was blinded by my own ignorance, and I admit it. The irony is that just as I once conflated the thoughtful purpose behind these distinct agencies, seeing them as a monolith, the Forest Service makes the same mistake by viewing all e-Bikes through a reductive lens, lumping them into a single, "motorized" category. This exclusionary treatment, rooted in the simplistic notion that "*e-Bikes have a motor, thereby are self-propelled*", perpetuates a shortsighted mistake that ignores the unique attributes and operational characteristics these vehicles offer, particularly Class 1 e-MTB models which are designed to mirror the non-throttled, pedal-centric experience of classic mountain bikes. And it's not entirely Forestry's fault. I understand why this is happening. I also fell into a similar logical trap. The term "motor" carries a historical weight, conjuring images of roaring dirt bikes and disruptive off-road vehicles. It's an association that has shaped policies and mindsets for decades. Once we believe something to be true, we subconsciously filter new information to fit that belief, rarely stopping to question if our assumptions still hold up in a changing world. It's easy to see how policymakers fell into this familiarity pattern, counting on outdated understanding of vehicle classifications to define policies for today's evolving transportation methods. Just as I took it upon myself to educate myself about the differences between National Parks and National Forests, I believe those tasked with shaping e-Bike policies, especially Trail Supervisors and Recreation Program Managers, must take the time to understand the distinctions within the bicycle style e-Bikes. The diversity of e-Bikes, their technologies, and their use cases deserves thoughtful consideration rather than blanket judgments. And just as I have the fortitude of character to admit that I was wrong, I extend the same challenge to the Bridger-Teton National Forest. Reassessing your views and reevaluating your knowledge is not a sign of weakness; it reflects growth and commitment to informed decision-making. As someone who has journeyed from misunderstanding to enlightenment, I am confident that the same transformation is possible within our local Forestry.

Administrative Vehicles and Horses: The allowance of administrative vehicles on service roads serves as clear evidence that access restrictions have never been solely about safety, environmental impact, or resource protection - it has always been about institutional privilege and authority. The only fundamental difference between me riding my Class 1 e-MTB and a government vehicle using the same service road is an arbitrary administrative decision - nothing more than a stroke of a pen granting one form of access while denying another. The natural world does not recognize or react differently to my presence simply because a regulatory body has declared my mode of transport "unauthorized." Nor does it respond to human-imposed designations; a stretch of dirt remains unchanged regardless of whether it's traversed by an e-MTB or a pickup truck with an official emblem. These access rules are pure social constructs - products of collective agreement to their significance. Just as these designations hold no intrinsic meaning beyond what is assigned to them, neither my presence nor that of an administrative vehicle alters the fundamental condition of the

road when used responsibly. If a several thousand pound vehicle is permitted to use Cache Creek Road simply because it carries the Forestry Service's bureaucratic blessing, then there is no rational basis for prohibiting e-MTBs from accessing the same road, when obtaining a similar blessing is just a matter of land managers smearing some ink on a piece of paper. Also, administrative vehicles are capable of reaching speeds well over 100 mph! That's a major safety concern! Imagine this fully loaded missile barreling down the service road and striking a child! We can't let that happen! They are dangerous, they're loud, and bad, and they are ruining this country! Ban these speed demon trucks!

Speaking of demons measured in thousand pounds; Horses. When it comes to shared trails in forested areas, the environmental impact of horses on trails is often overlooked despite being far greater than that of pedal-assisted bicycles. The combined weight of a horse and rider, often exceeding 1,500 pounds, focuses immense pressure on the ground through the relatively small surface area of the horse's hooves. This concentrated force can, and does easily puncture and compact the soil, especially in wet conditions. Unlike e-MTB tires, which distribute weight more evenly and typically roll over terrain with minimal soil displacement, horses create deep depressions that channel water during rainfall, degrading trail shape and quality over time. It is not just a hypothetical concern, it's an observable reality. A few years ago, in the Greater Snow King area, particularly on the Hagen Trail near the Bridge 3 Connector, trail damage caused by equestrian use has been well-documented. Despite this, horses continue to have unrestricted access to forest trails, while e-MTBs continue to face restrictions based on arguments about environmental impact that equestrians already contribute to. The DEA, somehow, fails to consider the actual environmental footprint of this activity, and compare it with those e-MTBs. If sustainable recreation and equitable trail access are to be achieved, it is crucial to acknowledge this discrepancy, and address the disproportionate impact of equestrian use on shared trails.

While both these subjects address separate things, the overarching theme that connects them is the arbitrary nature of access regulations. They both highlight inconsistencies in land management policies, and expose how decisions about who or what is allowed on trails and roads are based more on historical precedent, and selective privileging of certain user groups rather than objective measures of impact or sustainability. If the justification for limiting e-MTB access is environmental preservation, then why are administrative vehicles allowed free rein on the very same roads? If trail degradation is a concern, why are horses - which cause demonstrably more damage - granted unrestricted access while e-MTBs remain under scrutiny? And lastly, if e-MTBs are truly so disruptive to nature, why are they authorized for use by Teton County Search and Rescue teams in the Bridger-Teton National Forest - a place where public e-MTB use is currently prohibited? The same vehicle that is deemed an unacceptable intrusion on the land under normal circumstances is suddenly embraced as a critical tool when the situation demands it. This raises an uncomfortable yet thought-provoking question: is nature truly the offended party, or is it one's willful ignorance?

While we're on the subject of vehicles receiving the bureaucratic blessing of the National Forest, I'd like to share a compelling case for a practical utility of e-Bikes; Trail Maintenance. The Trail Division of Friends of Pathways could benefit from using an e-MTB, or a Class 2 Cargo e-Bike as a workhorse,

to haul equipment and materials to areas where maintenance is needed. Chris Owen and his back would really appreciate the ability to haul his chainsaw while he's out on the trails clearing them of fallen trees. I mean, why would someone let their allies burden themselves performing work when they could authorize the use of technology to alleviate unnecessary physical strain? An e-Bikes could also be used by the Forest Service during a bridge construction or building new trails, hauling heavy tools, materials, snacks and drinks for the hard working team. While I have technically suggested that a Class 2 e-Bike be allowed to enter the forest, I'd like to clarify that in the context of responsible use, and in the hands of authorized individuals serving a cause, this would not be a problem, just as it currently isn't with Teton County Search and Rescue when they are answering a distress call.

Better

If disrupting tranquility is a reason for not expanding in the Greater Snow King area, perhaps hikers should be banned from talking to each other. If fire hazard remains a concern, perhaps all electronic devices should be prohibited from the forest. If fear of trail degradation is a reason to avoid expansion, perhaps there should be user weight restrictions and a public scale at each trailhead. If wildlife displacement is an argument for not allowing e-MTBs on trails, then for the sake of flora and fauna preservation, all recreational activities should be banned altogether, and nobody should ever be allowed to enter the forest.

In all seriousness, if any of the aforementioned fears are considered as reasons not to expand, perhaps an invitation to the main office could help establish credibility. Local riders - those who are committed towards responsible use of their e-MTBs in the Greater Snow King area - could be granted access only if they agree to stricter terms and conditions set by the Forestry. If rider reputation is indeed what holds the forestry up, perhaps an optional donation to the Trail Division that maintains the trails could also be accepted. Be open upfront about the main concerns and why an elevated credibility tier is required. Trust is a luxury, and not everyone can afford it, therefore additional precautions such as inspecting their conveyance of choice will be necessary. First and foremost, no self-converted e-Bikes shall be allowed to enter the forest. The bike would need to be verified as a legitimate Class 1, non-throttled e-MTB, with the pedal-assist mechanism installed in the middle of the bike that is wrapped around the bottom bracket, the pedals of which are attached directly to the mid-drive, one on each side. If deemed necessary, riders may be asked to pull their batteries out of the frame and show them to inspectors for verification, to ensure that they are in compliance with CE or UL standards. Secondly, the bike would also need to be verified to feature compliant mid-drive systems from brands such as Bosch, Shimano, Brose, and Yamaha, who produce full-power mid-drives, and Mahle, TQ, and Fazua who produce medium and low-power mid-drives. Like we have previously discussed, these industry leaders only produce mid-drive systems that strictly adhere to this criterion; none of their models can be engaged with a throttle, meaning they can only be engaged via pedaling. Forestry could allow e-MTBs in the Cache Creek area only if they are equipped with mid-drive systems from these manufacturers. Any deviation from these potential requirements, particularly models incorporating throttles, falls outside the scope of what can be

designated as a pedal-centric conveyance, and shall remain categorized as motorized vehicles. Then, an authorization sticker or card validating compliance could be provided, which would pair well with the optional donation for the Trail Division.

The most pragmatic solution for managing e-Bikes on trails, again, is to focus on e-Bikes equipped with mid-drive systems only, and prohibiting those with rear hub motors. While I recognize that Class 3 e-Bikes are also mid-drive based conveyances, the 28 mph speed limit associated with that class is irrelevant in the context of single-track trail riding, just as I explained in “Tamper Mods and Similarities to Class 3.” Focusing on reliable mid-drive systems, paired with certified, high-quality batteries, is far more critical to ensuring safe trail use.

The proposed construction of the enclosed kiosk or cabin in the newly planned Cache Creek trailhead redesign could also be beneficial. Staff at the booth could assist with inspecting e-MTBs before allowing them access to the trails. Inspectors could also provide stickers or access cards to qualifying riders, ensuring that only those who meet equipment standards are permitted to use the trails.

Best

Consider modeling the e-Bike policy on that of the Department of the Interior and classifying Class 1 e-MTBs as bicycles if they are equipped with fully operable pedals and mid-drive systems of less than 750 Watts (1 horsepower). Unlike me, who often looks internationally for examples of successful implementation, the Forestry doesn't need to look that far. The answers to their problems are not overseas, they are across the highway, specifically at 103 Headquarters Rd, Moose, WY 83012. If the Grand Teton National Park can effectively balance the diverse needs of its visitors while ensuring environmental protection, there's no reason why the Bridger-Teton National Forest can't adopt similar strategies to achieve the same outcome. If sister agencies are way too far to reach, then Bridger-Teton National Forest should look no further than their own Travel Management Rule. It is clearly defined there in black and white, without interpretation, that “motor vehicles” are the ones that self-propel. Class 1 e-MTBs do not and cannot be modified to do so. The existing regulatory framework, as written in the Travel Management Rule, already supports this stance. Why can’t Bridger-Teton National Forest acknowledge it and put it to good use?

I keep mentioning the Travel Management Rule throughout this letter because I believe it wields significant power in this discussion. Not just because of the precise language that could be used to justify allowing Class 1 non-throttled e-MTBs, but also because of the collective efforts of advocacy groups that recently led to the regulatory burden of e-Bikes to be decreased. The proposed revision to update its directives and clarify guidance on e-Bike management successfully passed in March 2022. Although we haven’t seen any amendments to the definition of a motor vehicle, the revision added e-Bike-specific definitions to the Forest Service Manual and outlined criteria for designating e-Bike use on NFS trails. These actions, by the way, are the strongest indication of a shift in how the Department of Agriculture views e-Bikes, recognizing them as a distinct category, and warranting their own set of rules. If this department had intended to continue treating e-Bikes as motor vehicles

in the traditional sense, there would be no need for separate definitions and specific guidance to be enshrined into the law. By approving high-level policy changes to add e-Bike-specific language and terminology, the Department of Agriculture effectively acknowledged that e-Bikes cannot simply be lumped into the broad "motorized" category. And now that The Department of Agriculture has laid the groundwork, the Forest Service must follow through by educating its staff of policy changes, especially Trail Supervisors and Recreation Program Managers. If these updates are not effectively disseminated, the field staff will default to outdated restrictive policies, and continue viewing all e-Bikes as a monolith.

With that said, district rangers and forest supervisors now have all the necessary prerequisites for moving forward and loosen this restriction. With Chief Randy Moore himself giving the green light, why is Bridger-Teton National Forest hesitant to approve this proposition? There is no reason to continue to delay liberalization of use. If there is, please provide a citation for your concern. I mean it. What if there truly is a serious problem and I am overlooking it due to my personal bias? It's incredibly hard to believe there are legitimate reasons for holding back when no evidence or valid arguments are being presented. I have studied the Draft Environmental Assessment and familiarized myself with the four issues identified in it. However, I believe throughout the length of this letter I have provided enough evidence to counter those concerns. I fully understand that having very little national precedent adds a layer of complexity, and that there must be some degree of precaution factored in. But, if nobody is willing to break the ice, then there will never be any example set for others to follow. Progress and change is reliant on someone taking the initial step. As is the case with anyone who is courageous enough to take it, new things will have to be learned along the way. The reality is that you become so much more equipped to deal with them when you have more context than anyone else. Ensuring successful implementation of this proposition requires collective effort, you won't be walking this path alone. Many of us, e-MTB enthusiasts across different parts of culture, are willing to contribute our time and firsthand knowledge towards making it all come together.

In light of this discussion, I believe all trails currently open for mountain bikes should also be open to Class 1 e-MTBs. If a traditional mountain bike is granted access to a trail, it is only logical to extend that access to Class 1 e-MTBs as well. I am compelled to continue advocating for this allowance, even though it is not formally acknowledged or considered as an alternative in this proposal. This idea, supported by myself and dozens of others who voiced their agreement in the second round of commentary, presents what I believe to be the most effective and equitable approach for managing Class 1 e-Bikes on trails: to allow them everywhere traditional mountain bikes are permitted. It's not just a proposal rooted in wishful thinking - it's a reality waiting to be recognized. Class 1 e-MTBs, with their pedal-assist functionality and absence of throttles, function as an extension of traditional mountain biking, not a deviation from it. Their presence on trails does not introduce a new category of impact; rather, it maintains the same footprint as a conventional mountain bike. The only meaningful difference is the level of accessibility they provide. Therefore, it is both logical and fair that any trail accessible to a traditional mountain bike should also be accessible to a Class 1 e-MTB.

To address potential concerns with this approach instead of those currently considered, I propose a fair compromise as part of trail etiquette: How about e-MTB riders yielding to all other users, regardless of direction? With extra power under foot, and the right gear, it wouldn't be hard jumping back in motion, even if riders were on a 10 degree slope. This additional responsibility would reflect the privilege of expanded access and would demonstrate a commitment to respectful trail sharing. Of course, stopping for everyone would come with a considerable amount of inconvenience and would disrupt the flow. But hey, I get to enjoy the great outdoors, legally ride the trails, and not worry about off-duty NFS employees threatening me with slashing my tires. Perhaps, to rectify the flow issue, again, a one-way system, or a preferred-way system could be considered and implemented. Trails with a preferred-way system would also be great recommendations for e-MTB riders to prioritize. Service roads would actually work great for e-MTB riders to use and get to the spots they wish to descend from. This policy would simplify trail management, and eliminate unnecessary restrictions that could hinder the growth of responsible e-MTB use. I vote for this common-sense solution and urge decision-makers to adopt it as the foundation for future trail-use regulations. Instead of scrambling to resist what will ultimately come to pass, why not shift the conversation from obstruction to management and start developing the frameworks and strategies to ensure their responsible integration? The only thing being accomplished by delaying this adoption is unnecessary friction, wasted resources, and perhaps a few prematurely gray hairs.

All of the above brings me to the final point on this topic: The Bridger-Teton National Forest's claim that e-MTBs are a "type of motor vehicle", resulting in them being incompatible with "non-motorized trails" appears to lack consistency and rational grounding. This argument seems not only irrational but also contradicted by the Forest Service's own actions and statements. To start, the assertion that e-MTBs are incompatible with non-motorized trails is bizarre given Bridger-Teton National Forest's apparent recognition of the environments e-MTB riders prefer. It's clear that e-MTB riders, just like traditional mountain bikers, seek single-track trails which are not shared with motorcycles or ATVs - a point that Bridger-Teton National Forest's upper management seems to understand. Moreover, previous concerns about e-MTBs causing excessive trail damage or posing significant fire risks due to battery malfunctions have also been dispelled, as evidenced by the Bridger-Teton National Forest's shift away from considering those arguments. It also seems like Bridger-Teton National Forest is inclined, but not fully committed to admitting that Class 1 e-Bike are marginally faster than regular bicycles when averaging their speeds out, with Class 1 being just a few miles faster on the uphill sections. These acknowledgments are encouraging, as they suggest some level of understanding of modern, pedal-assisted e-Bikes. However, the inconsistency in the Forest Service's stance is where the core issue still lies. While the Cache Creek and Game areas remain off-limits to e-MTBs under the guise of preserving non-motorized use, one of the proposed alternatives involves permitting e-MTBs on Teton Pass trails - trails currently designated as non-motorized. This clearly indicates that Bridger-Teton National Forest is willing, and is able to circumvent the "non-motorized trail" designation and allow e-MTBs access to those trails - the conveyance they claim falls under the "type of motor vehicle" definition. I really don't understand why the Forest Service continues using this ill-suited terminology, when there is established legislation clearly defining it; The **CPSC** defines an e-Bike as a "low-speed electric bicycle" and has been treating them as bicycles since 2002. Why can't

the Forest Service move away from their outdated approach when every other federal agency in the nation already did? But I digress. If this is legally and logistically feasible on Teton Pass, then it should be equally feasible in the Cache Creek and Game areas. Thus, the decision to continue excluding e-MTBs from those areas cannot be justified solely by the "e-MTBs are a type of motor vehicle" argument, or by a commitment to managing them exclusively for non-motorized uses. This leads to the conclusion that the exclusion of e-MTBs from the Cache Creek area is not simply a matter of principle, but also of privilege. By allowing e-MTBs on Teton Pass while barring them from Cache Creek, Bridger-Teton National Forest appears to be selectively applying its policies in ways that cater to certain user groups over others. Cache Creek, in this context, seems to be reserved for an elite group of users who wield disproportionate influence over land management decisions. This creates an inequitable system where access is not determined by objective considerations, but by the preferences of a privileged few. If the Forest Service's primary concern were truly about managing trails for non-motorized uses, then it would apply its policies uniformly across all areas. The willingness to allow e-MTBs on Teton Pass trails demonstrates that this concern is not as rigid or absolute as it is portrayed. Therefore, the refusal to permit e-MTBs in Cache Creek lacks a credible basis and instead points to a systemic bias favoring certain user groups at the expense of inclusivity and fairness. There is no valid excuse for excluding e-MTBs from Cache Creek. If Bridger-Teton National Forest can navigate the "type of motor vehicle" designation to allow e-MTBs on other non-motorized trails, it can and should do so in Cache Creek as well. Any refusal to do so undermines the principles of equitable trail access and suggests that the Forest Service's policies are driven more by the interests of a select few than by a commitment to fair and balanced land management.

Perhaps, the greatest force of peace in this situation is the exploration of the idea that from a rational and moral perspective, other than the one people made up themselves and solidified in their own brain, there is no difference between Pedal Electric Cycles and classic mountain bikes. If you do see a moral difference, it is very likely that you're clinging to a belief system that feeds on disregard rather than reason. Hate to draw this parallel, but restricting e-MTBs from the Cache Creek based on morality alone, is morally akin to segregation. It mirrors the same ethical violation - denying equal access and opportunities through physical and regulatory separation. Just as racial segregation unjustly divided people and limited their opportunities based on an arbitrary characteristic, banning e-MTBs unjustly discriminates against a segment of the mountain biking community. Just as society recognized the moral imperative to end segregation, there is a similar moral imperative to end this exclusionary restriction. Treating a minority group as inferior or unworthy of equal treatment is not a quality to be proud of today.

Constructive Criticism

Throughout the duration of the Travel Management Plan revision, the e-MTB industry advocated and lobbied for more lenient regulations, similar to those governing traditional bicycles. It was nationally expected for Class 1 e-MTBs to be granted the same privilege as mountain bikes, given the magnitude of positive feedback from international advocacy groups and science-driven studies, in which it has been established numerous times throughout the years that Class 1 e-MTBs are not a threat to the already existing network of single-track trails. That did not happen. Regardless of how infuriating this outcome has been, it doesn't matter now. Another lengthy process is what lies ahead of us, and we have no choice other than keeping our composure and being patient while Forestry is working things through. What matters now is that there is pushback from local groups who persist in demonizing both the vehicles themselves and those who ride them. More often than not, it's manufactured panic, but sadly, it has real effects. Some folks will not stop opposing this proposition, regardless of how much effort there is to educate and promote understanding. As much as I wish I could enlighten them, they just won't listen. They will persist in fostering negative perceptions and shaping public opinion that suits and favors a particular agenda, which let's be honest, is to keep the trails to themselves. They will keep resorting to mockery and deride e-MTB enthusiasts as lazy and irresponsible schmucks, casting them as adversaries to the very trails they enjoy. Their rhetoric seeks to influence public opinion, urging others to join their ranks by supplying them with pre-written templates with made up arguments and fear-mongering tactics. All this e-MTB hysteria is fueled by baseless fears, exemplified by phrases like "wreckreation!", "slippery slope!", "recipe for disaster!", "can of worms!", and "tragedy waiting to happen!". Perhaps most absurdly, they fabricate scenarios in which e-MTBs recklessly fly through the forest and wreck into small children. Classic example of catastrophizing - vividly imagining the worst possible outcome and inflating the danger far beyond reality. Their fear, while seemingly grounded in concern, is nothing more than a moral panic, where the most immediate emotional response to a perceived threat is an exaggerated cry for action. Their accusations lack any grounding in reality, demonstrating a fundamental refusal to engage in reasoned discourse and revealing a bias against e-MTBs rather than genuine concern for safety or environmental impact. It's clear that the opposition's objections are rooted in prejudice rather than in reasoned argument. Comments like that serve no purpose other than nudging everyone into hating each other. They purposely generate a series of incendiary claims designed to portray e-MTB riders in an unfavorable light. These tactics aim to appeal to those who hold a hardline stance against e-Bikes, reinforcing their preconceived notions that e-MTBs are a threat to trail safety, environmental integrity, and traditional mountain biking experience. The volume of their voices, amplified by social media, gives the illusion of widespread discontent, even though the majority of trail users may not share these extreme views. A prime example is, yet again, this very much-anticipated proposition that constantly misses its own deadlines and continues to be pushed back every other month without notice. Sure, there's an argument to be made regarding this summer's fires in the valley that may have stalled its progress, but that's not entirely accurate. The second round of commentary on this proposition was initially slated for April 2024, with its implementation estimated for July. These delays started way before the wildfires did. I refuse to

believe they are a result of that. It's a response to the sheer noise generated by these detractors in the first round of commentary, not wildfires. Their goal was clear: sow enough doubt and fear to stall progress, hoping that a prolonged delay would serve their own preferences and interests. It only served to slow progress and deny access to those who seek to enjoy the outdoors in a different yet equally responsible way. Those who stand against e-Bikes are using incendiary rhetoric to skew the narrative, painting e-MTB riders as irresponsible and selfish. And by framing e-MTB riders as troublemakers, detractors were able to push that agenda. The real issue isn't e-MTBs, but rather the weaponization of fear and misinformation to shape public policy. Their incendiary claims conveniently sidestepped the growing body of evidence that shows e-MTBs can harmoniously coexist with traditional trail users, and they completely disregarded research that highlights the minimal environmental impact of e-Bikes when compared to other forms of outdoor recreation.

While it might seem like I'm being disrespectful of others' opinions, I assure you I am not. I am well aware that everyone is entitled to their own opinions, regardless of their level of expertise. What I'm saying is that the opinions people hastily express in writing need to be evaluated from a perspective of logic and reason. Land managers should look past the inflammatory language and focus on identifying whether their comments contain any constructive feedback upon which you can lay a solid groundwork for action, rather than focusing on outliers who are intentionally provocative. If a comment only serves to fuel anger or division without offering suggestions for compromise or improvement, it should be deprioritized. Take this quote for example: "They're fast approaching predators that rob you of dignity". While the determination of what e-MTB riders are is a matter of personal judgment and individual interpretation, this type of commentary is not what regulations need to be based on. One should not restrict access based on people's interpretations of what things are. Rather, it must be approached with a calm and collected mind and face the facts that are based on direct evidence and science. Comments should be measured against existing studies, impact reports, and scientific studies on e-MTBs' actual effects on trails, wildlife, and other users. Unlike the restrictions that we currently have in place, which have already consumed nearly 9 years of our lives, their adrenaline kicks from blindly raging over this proposition won't even last half an hour. Pushback from emotionally charged perspectives shouldn't have leverage over Bridger-Teton National Forest and influence this agency to satisfy their ignorance. Just as the court does not let emotional arguments overrule facts, Bridger-Teton National Forest should not let emotionally charged perspectives override clear evidence demonstrating that e-MTBs are not a threat to the existing networks of trails. It's about separating the emotional reactions from the thoughtful feedback, which is key to making informed and balanced decisions. Rather than succumbing to the sensationalism and fear-mongering perpetuated by these detractors, I urge decision-makers to approach their complaints with a critical eye and focus on their quality instead of quantity. Prioritizing evidence over emotion ultimately serves the best interests of stakeholders.

Public lands are managed by governmental agencies on behalf of the public. These lands are part of a shared trust meant to benefit the entire population, not just a few particular, privileged groups of users. The Forest Service exists to ensure that these lands are preserved and accessible to a broad spectrum of people, not reserved for a few privileged groups to dictate their preferences. Excluding

certain groups from enjoying trails or dictating how others should experience nature, goes against the principles of fairness and inclusion. Allowing any group to dominate access or use of trails does nothing but breed a sense of favoritism, which is contrary to the inclusive ethos of public lands. No particular user group has exclusive ownership or the right to dictate how others should enjoy the outdoors. Favoritism fosters elitism and diminishes the shared experience that public lands are meant to provide. The outdoors embodies a spirit of openness, exploration, and connection with nature. Closing off this experience to others or excluding different user groups is contrary to these values. This not only harms other user groups but can also alienate new generations of outdoor enthusiasts, ones that the Forestry has a legal obligation to equally serve. Public lands are for everyone, regardless of their mode of recreation. Whether someone prefers hiking, biking, or horseback riding, they have an equal right to enjoy these spaces. The outdoors are not an exclusive club; they belong to everyone.

When it comes to decision making, with regards to who and what has access to the public lands, all user groups should have a fair say in trail and land management decisions. We all have a responsibility to contribute to the stewardship of public lands, but large contributions, be that financial or not, should not determine whose interests take priority. Instead, land management decisions should be made with the broader public in mind, ensuring that larger contributions serve the collective good, and not the preferences of a select few. Elite groups should not have disproportionate influence over the outcome of this proposition. As long as their voices dominate the conversation, we will continue to see decisions that favor exclusion over inclusion, and stagnation over progress. If the National Forest Service satisfies their preferences over everyone else's, then they are doing a disservice to their own values. Providing equal representation to all user groups ensures that no single group has undue influence over how public lands are managed. Inclusivity is vital to ensure that every outdoor enthusiast - regardless of their preferred activity - is heard and considered.

Undue privilege due to past contributions

One of the most liberating feelings of living in the United States is the profound sense of independence - a freedom unburdened by the chains of undue obligation. It's a sensation I've dreamed of much of my early life: the peace of not owing anyone anything, of standing on my own merit and living with the assurance that when aid is given or received, it is done in the spirit of goodwill, not as a seed for manipulation.

When a group - be it a conservative alliance or an influential donor - makes a substantial and generous contribution to support a public cause, such as a National Forest's mission to conserve and protect natural landscapes, that act is commendable. At face value, it's a gesture that seemingly aligns their resources with the public good. But what happens when that generosity is no longer about supporting the cause, but about controlling it? What happens when that past donation, once freely given, is suddenly invoked to guilt or coerce the National Forest into feeling indebted, into making decisions that prioritize the group's interests over the integrity of its mission? This is not

generosity; it's manipulation cloaked in the guise of goodwill - a tool to extract undue influence or special favors. Groups that stoop to such tactics should have no place as a continued partner in preserving what belongs to everyone. True partnership stems from respect, mutual understanding, and shared purpose, not from transactional relationships designed to trap one party in a cycle of unspoken obligation.

When someone offers their support, gratitude is natural. It's human. Even when the support is fully repaid, there's often a lingering sense of appreciation - a subconscious inclination to reciprocate. But when that gesture of generosity is twisted into a tool for control, when it's dredged up to extract a favor or pressure an institution into compliance, it crosses an ethical line. It becomes a form of exploitation, preying on gratitude to manipulate the other into submission. The moment a decision is made out of fear of upsetting these benefactors, we must ask ourselves: Who, exactly, are these people we are afraid of angering? What power do they hold that makes their displeasure a greater concern than the integrity of the mission? If rejecting their influence makes them unhappy, then so be it. The right decision does not change simply because it is unpopular among those who seek control. Integrity is not something to be traded for continued favor, nor should the future of public lands be dictated by those who believe their past donations entitle them to special treatment. If standing firm in your mission, in fairness, and in equal access makes them unhappy, then perhaps they were never true allies to begin with.

I have personally witnessed this imbalance firsthand. When advocating for Class 1 e-MTB access in the National Forest, I was met not with an open discussion, but with condescension - told that I need to educate myself about how things work. And yet, I find it curious that this expectation of education always seems to fall on those advocating for progress, never on those resisting it. If misinformation and misinterpretation is the barrier, then why is there no effort to educate those who oppose e-MTB access? Why not challenge their outdated views, reshape their perspective, and align their understanding with the reality of modern day e-MTBs? The reality is that it's been proven, time and again, that Class 1 e-MTBs are indistinguishable from regular mountain bikes in terms of impact. Study after study has confirmed that they do not cause more environmental harm, nor do they pose a greater risk to trail users. The data is there, and the research is conclusive. Do not willfully ignore it in favor of outdated perceptions. If science and observation consistently demonstrate that e-MTBs pose no unique threat to the forest environment, then the conversation should not be about withholding access. It should be about creating it. The burden of proof has already been met - now the focus must shift to action.

And that brings me to a fundamental question: Is the National Forest truly an equal opportunity space for all? Public land is meant to be just that - public. Even Mr. Stiles, in his own words, stated that these lands belong to everyone and that e-Bikes have an equal right to access them. So why, then, are e-MTBs being segregated from the trails that responsible riders want to enjoy? Why is access being restricted based on outdated perceptions rather than objective reality? The very mission of public lands is to serve the public - not just the groups with largest contributions. The National Forest and its mission are bigger than any one group's agenda. They represent the collective interests of the people - diverse, multifaceted, and deeply rooted in the idea that these lands belong to

everyone. To succumb to such manipulative tactics is to erode that very foundation. It sends a dangerous message: that influence can be bought, that conservation and public trust can be undermined by veiled threats masquerading as generosity.

No organization, no group, no individual is entitled to special treatment or leverage over the public good simply because they once contributed to its cause. Real support is unconditional. It's given freely, comes without strings, and without expectation of return. That trust, that purity of intention, is tarnished when generosity is wielded as leverage. To weaponize it is to reveal its true nature - not a gift, but a transaction designed to ensure future control. And groups that operate this way are unworthy of partnership, unworthy of trust, and certainly not worthy of the honor that comes with being stewards of the natural lands.

The National Forest Service - and by extension, every institution entrusted with safeguarding public lands - must recognize this for what it is and reject it outright. It must stand firm in the principle that public land management cannot be swayed by financial guilt-tripping or political maneuvering. Because real independence - whether for an individual or an institution - is not just the absence of debt. It is the ability to refuse manipulation disguised as kindness. That is the essence of integrity, and it must remain the guiding force behind every decision made in the service of the public good.

I recognize that my voice may not carry as much weight as those of local groups and organizations. But that does not mean I am without one. I do not have the influence of those who believe their contributions grant them a permanent seat at the decision-making table. But it does not mean my perspective is any less valuable, nor does it mean I am not in a position to question or to challenge decisions that run counter to fairness. The value of integrity and standing up for what is right - cannot be measured in dollar amounts.

In Conclusion

Fear of the unknown is as old as humanity itself. What once kept our species alive now manifests as resistance to change - an instinctive reflex against the unfamiliar. It stirs a deep, almost instinctual unease within each one of us. Throughout the history of social advancement and growth, when something new emerged - be it a technology, an idea, or a shift in social norms - there has always been backlash from groups of people who vilified and rejected everything that wasn't in line with their personal standards and traditional values, fearing that the new will undermine their identity rather than enrich the world for all. The resistance to e-MTBs follows this same well-worn path, not rooted in reason or direct experience, but rather in a primal reaction - a fear that something is being lost, that the old way of interacting with nature is slipping beyond their control.

For years, certain voices have held influence over outdoor spaces, shaping policies and defining what is deemed acceptable recreation. The arrival of e-MTBs challenges this control, shifting the dynamics of who gets to enjoy the trails and on what terms. In some ways, the opposition to e-MTBs is not just about the bikes themselves, but about maintaining an established order - an order where tradition

dictates access and innovation is met with skepticism rather than open-minded evaluation. At the core of their argument is the belief that e-MTBs blur the line between human-powered recreation and motorized intrusion. They will insist that the forest is a sanctuary that must be preserved by adhering strictly to the past, that the natural world is best experienced through physical exertion, and that the purity of the trail is maintained by the limits of human endurance alone. Benefiting from assistive mechanisms - no matter how small or silent - is a shortcut that cheapens the experience and erodes the authenticity of the outdoors. But this argument is more than just a philosophical stance; it is a smokescreen. Beneath the rhetoric of environmental concern and purity of experience lies a self-serving motive: Exclusivity. The desire to preserve not the land, but their dominance over it. The outdoors are not an exclusive group reserved for those who fit the purist mold, nor should its future be dictated by those who are greedy and unwilling to share the trails.

Today, similar voices seek to persuade Bridger-Teton National Forest that individuals like me - people who embrace e-MTBs as a responsible means of exploration - are a threat to the intricate balance between humanity and nature. In their eyes, armed with technology, no matter how responsibly used, we intend to disrupt that balance, fostering a sense of hostility and disharmony. But these perspectives are just faulty. e-MTBs do not strip the forest of its serenity, nor do they replace the spirit of exploration; they allow people to appreciate its majesty without demanding an arbitrary level of physical prowess as the price of admission. In contemplating those bold notions, I hope you arrive at the realization that e-MTB technology, in its essence, is not a threat to nature, but rather a manifestation of humanity's innate curiosity and desire to further discover the world. We are not a monolith of disruptors. We are a mosaic of outdoor enthusiasts who find joy and solace in exploring nature responsibly. In embracing that realization, I hope you will transcend the role of intermediary between conflicting perspectives, and become the force for regeneration and renewal.

If you take one thing away from this, let it be this: While there will always be individuals who act irresponsibly, just as there are in any recreational group - it is neither fair nor logical to let the actions of a few dictate access for all. The future of mountain biking should be shaped by open minds, not closed doors.

Thank you for your time, everyone,

Sincerely,

-Ian Vadim