

**From:** [Joyce Crews](#)  
**To:** [Board Comment](#)  
**Subject:** bikes on the mountain  
**Date:** Saturday, April 6, 2024 1:29:38 PM

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As an 88-year-old woman who hikes on the mountain occasionally I would prefer that bikes not be allowed on the trails. Being on the mountain should offer a peaceful, quiet experience and bikers have a tendency to ride too fast to allow that. I fear it might endanger some hikers, particularly elders. The water board's responsibility is to protect our watershed and having bikes on the trails is likely to lead to more damage and erosion.

**From:** [jillkristensen@aol.com](mailto:jillkristensen@aol.com)  
**To:** [Board Comment](#)  
**Subject:** MMWD Watershed Bike Access Expansion  
**Date:** Saturday, April 13, 2024 6:53:26 PM

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As a long time Marin resident and hiker I have enjoyed many hours hiking on Water District single track trails. Unfortunately I have encountered speeding mountain bikes on those same trails acting with complete disregard for safety of legitimate trail users. Not only is their illegal behavior dangerous it also ruins the trails by causing deep ruts and subsequent erosion, especially during our rainy season. I urge you to resist pressure from the bicycle coalition to open up single track trails for mountain bikes.

Similarly, I am greatly concerned about the proliferation of e-bikes on trails and fire roads. These heavier machines cause substantially more trail damage and are often ridden recklessly to the detriment of human and animal life. The specious argument that older hikers who can no longer enjoy Water District trails would happily transition to e-bikes to continue their enjoyment of nature is absurd. If they do transition I'm sure it would be to safe paved bike paths, of which there are many in this county.

For the above reasons I urge you to limit bike access to Watershed lands and only allow bicycles that are entirely human-powered to be permitted on natural surface roads and multi-use trails.

Jill Kristensen

**From:** [Robert Freinkel](#)  
**To:** [Board Comment](#)  
**Cc:** [Linda Novy](#)  
**Subject:** Recreation Plan  
**Date:** Sunday, April 14, 2024 4:32:53 PM

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Dear Board Members:

As a 78 y/o long term hiker, hike leader, and visitor, I am commenting on the proposed changes to the use of the watershed by cyclists.

This is a watershed, not a bike park

The history of cyclists on MMWD lands has been contentious including an assault on a female ranger on the Stocking Trail, assaults on hikers on the 680 and Matt Davis Trails, continued illegal night riding, trail building, use of single track trails etc.

The District is now proposing to enlarge the impact of such illegal activities with virtually no enforcement of current regulations.

1. EBikes. The Ebike CAC committee received testimony from the Bosch rep that mere observation could not distinguish various classes of eBikes. Currently there is rampant illegal use including speeding by electric motorcycles which careen out of Deer Park at 25 mph. Motorized vehicles do not belong on trails and roads in the MMWD.
2. The NYTimes reports over 100 fires of eBike batteries and 5 deaths in NYC alone. Those batteries will overheat and catch fire eventually threatening the watershed
3. Single track trails are not suitable for bikes of any type at any time. They are narrow pedestrian sidewalks of the forest. Passing is difficult for hikers and impossible when confronting one or more cyclists, some of whom may be on eBikes if permitted. Hikers moving at 2 mph vs cyclists at 10-20 mph are a recipe for disaster, including injuries and even death.
4. There is no possible effective enforcement with 37 points of entry. Signage is ignored. Damage to trails is abundant and visible. An example is the cut made to avoid steps on the Benstein by the traffic sign chained to a tree. Gouges are frequently seen after rains caused by bikes. This leads to trail damage and erosion.

I am very disappointed to discern the promotion of further cyclist access and use in spite of decades of illegal activities and assaults on other users, illegal trail building, an illegal Pine Mountain invasion requiring Marin Sheriff intervention, etc.. This will result in the displacement of hikers and equestrians. Proposals for single direction trails and alternate day use illustrate the arrogance and lack of consideration by the cyclists and their lobby group which is well financed by corporate industry.

Finally I am doubtful that your risk management team and your liability insurance carrier will be pleased to learn of increased potential risks inflicted on hikers and equestrians by increasing bike use and placating a vociferous minority user group. I have not noted any such discussion at all regarding this issue previously.

Very truly yours,

Robert L Freinkel

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Virus-free. [https://link.edgepilot.com/s/0797c617/jiSBtV6sq02X0lgDASd-ww?  
u=http://www.avast.com/](https://link.edgepilot.com/s/0797c617/jiSBtV6sq02X0lgDASd-ww?u=http://www.avast.com/)

**From:** [muirwalker@aol.com](mailto:muirwalker@aol.com)  
**To:** [Board Comment](#)  
**Cc:** [lindanovy@comcast.net](mailto:lindanovy@comcast.net); [Robert Freinkel](#)  
**Subject:** bicycles in water district  
**Date:** Monday, April 15, 2024 6:39:00 AM

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Is there any provision for restriction of the mountain biking to certain groups or individuals? Will the water district be open to all comers, nationwide and worldwide? Mount Tam is the birthplace of mountain biking. What is to prevent companies like PON, (a substantial donor) to Marin Bicycle Coalition, or Mountain Mikes or any other bicycle rental company from renting bikes in Mill Valley with instructions on how to get to the water district via Panoramic Highway? Are there any restriction from bicycle rental shops from bringing truckloads of bikes up the hill and renting them from the pull outs off Panoramic Highway?

I have hiked this Mountain for over 40 years and respect this wonderful piece of nature we have been blessed with. Please do not turn this sanctuary into a monument of greed and destruction. In all my years of hiking I have encountered numerous bikers and have yet to see any one of them stop their vehicle and look at a flower or a deer or to enjoy the view. To the Mountain biker, Tam is an outdoor gymnasium, not a nature lesson. Every day our lives are plagued by wheeled conveyances. Could we simply have a little area of peace and serenity? Board Please leave the district to those of use, many of whom are up in years, for the enjoyment and interaction with nature without destroying the very solitude and tranquility we have come to love. Get off your bikes and join us on a flower hike, enjoy nature, don't destroy it.

**From:** [Kathy Riso](#)  
**To:** [Board Comment](#)  
**Subject:** Comments for Watershed Recreation Management -April 16th BOD Meeting  
**Date:** Monday, April 15, 2024 2:08:55 PM

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Hello,

I would like to comment on the upcoming Pilot Programs regarding access for Bicycles and Ebikes on Watershed Trails.

I fully support shared trail use for newly built trails that are being built for multi-purpose users such as Azelea Hill project.

I have an issue with the suggestion of sharing the older historic trails with Bicycles and Ebikes. These trails were built 50+ years ago and tend to be only 24" to 36" wide, often times with no berms, cliff drops or ways to pass. I am having a hard time rapping my head around what to do if I am hiking up Fish Gulch Trail (12" wide in places) and having a bike coming down at me at 15+ mph. There is nowhere for either user to pass and stopping quickly may not be an issue if the bike is going faster than 3-5mph. Please take this into account when you are deciding which trails to grant bikes access to.

If we are able to pass by going off trail into the hillsides how does that affect the environment? Plants, animals, erosion, etc? Not sure if you have CEQAs in mind for these older more fragile trails.

I go to the meetings and am surprised how innocent the biker community portray themselves. Maybe I spend too much time than most but I have pages of negative interactions with cyclist riding unauthorized trails, speeding and dogs off leash. I report these incidents and they never seem to show up on the reports submitted to you. Also, the recent User Survey has incorrect data. I have spoken to over 25 people who tried to access the Survey and the link was broken then disappeared.

My most upsetting and daunting incident was when I was injured (broken ankle with compound fracture due to rolling it in an erosion rut) on the Deer Park Fire Road and was being brought down the fire road to the ambulance and three cyclists sped by me with only 2 feet between the gurney and the berm. There was no slowing down to pass, asking if they could pass, etc. If they had hit the gurney and I fell off I would have lost my foot. The emergency crew told me they do it to them all the time.

I am also very surprised that a user group that is known to disregard the rules, create over 40 miles of Social Trails is giving so much privilege. I have a hard time understanding that we are rewarding bad behavior instead of using it as leverage to gain some compliance. "Prove to us

that you can comply with the rules, then we will grant trail access", instead I hear we can't control them or catch them, is this what you want to grant more access to? At the Feb 29<sup>th</sup> meeting, many cyclists noted that they currently ride the trails, ride the social trails and ride Ebikes in the Watershed. This was a missed opportunity for the Board to condone this behavior and yet not a word was spoken. Moments like these are what seem to empower the cycling community to continue to break the rules.

Please do not put our safety and the natural environment in jeopardy due the wants (not needs) of a single user group. China Camp is an excellent example of user displacement once cyclist were given trail access.

Thank you for your consideration,

Kathy Risso

**From:** [sfdlong@ix.netcom.com](mailto:sfdlong@ix.netcom.com)  
**To:** [Board Comment](#)  
**Subject:** Marin Chapter of the California Native Plant Society Comments on Marin Water Watershed Recreation Management Planning Feasibility Study  
**Date:** Monday, April 15, 2024 3:47:29 PM  
**Attachments:** [MCNPS comments on MWRecMgmtPlanFeasStdy 2024-04-15.pdf](#)

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Please find attached the comments of the California Native Plant Society Marin Chapter on the Marin Water Watershed Recreation Management Planning Feasibility Study.

Because of the closeness to the April 16 meeting, I already emailed these comments to individual board members.

Thank you for the opportunity to comment on this Study.

Sincerely,

Dave

David Long  
Co-President  
Marin Chapter  
California Native Plant Society  
415-301-1992



**Marin Chapter**

P.O. Box 1408



**California Native Plant Society**

Mill Valley, CA 94942-1408

April 15, 2024

Ranjiv Khush, President,  
Matt Samson, Vice President,  
Jed Smith,  
Larry Russell,  
Monty Schmitt,  
Board of Directors  
Marin Water  
220 Nellen Avenue  
Corte Madera, CA 94925

Subject: Comments on Marin Water Watershed Recreation Management Planning Feasibility Study (Feasibility Study) from Marin Chapter of the California Native Plant Society

Dear Marin Water Board of Directors,

The Marin Chapter of the California Native Plant Society (CNPS) is committed to preserving the native plants and habitats of the Mt. Tam watershed that are foundational for clean water and the maintenance of healthy biodiversity. CNPS has a long history of working with Marin Water to protect its natural environment, including helping to create watershed plant lists and locate and identify sensitive plants and plant communities and associations. These comments on the Watershed Management Planning Feasibility Study supplement our April 6, 2023 Comments on Environmental Review of Watershed Recreation Management Projects (2023 Comments), made jointly with Marin Audubon Society; our earlier comments are also applicable to the Feasibility Study and attached as Appendix A.

We are pleased with certain elements of the Feasibility Study. It proposes recreational zoning, which we support, and recognizes that recreation planning and zoning must include the Biodiversity Fire and Fuels Integrated Plan (BFFIP). It describes the watershed's environmental values and resources and discusses the harm visitor activities can cause to the environment. We agree with Feasibility Study that Marin Water's unique natural resources require close monitoring, and stewardship. (p. 15) We also support its recommendations about more robust interpretive and educational programs and better signage.

Unfortunately, the Feasibility Study lacks many elements that one would expect as a foundation for recreational planning for a natural area with a wealth of sensitive special status plants and habitats and subject to a variety of environmental stressors. It is more

a rough sketch than blueprint. It provides little history of visitor activities on the watershed and the environmental damage those activities have caused. Although acknowledging in the abstract the environmental damage recreation can cause, it largely ignores the environmental damage recreational activities (and visitor access in general) have in fact caused to the watershed. The report ignores the growth of illegal non-system trails on the watershed from 50 miles to 70 miles since the 2005 Road and Trail Management Plan.<sup>1</sup>

We expected the recreational planning process and the Feasibility Study would present and discuss policy proposals that would prevent and mitigate the continuation of known environmental damage from visitor activities. The Feasibility Study, however, virtually ignores well-known environmental stressors from visitor activities that include illegal trail building, illegal trail use and night riding. The Feasibility Study neither discusses in any detail nor provides options for eliminating or mitigating these and other environmentally damaging activities. Before any recreational projects proceed, these issues should be thoroughly addressed through comprehensive environmental review and an updated and expanded roads and trails inventory. A recreation plan that fails to effectively address these persistent environmentally damaging activities must be considered a failure.

**First priority in recreational planning must be a comprehensive environmental impact analysis of visitor activities on the watershed including the creation of visitor activity zones**

The best evidence of the environmental impact of authorizing additional recreational activities on the watershed is the environmental impact of those activities in the past. Without an accurate inventory, understanding and environmental analysis of this impact, Marin Water has no way of determining the environmental impacts it must avoid or mitigate to authorize additional recreational activities.

Before one can understand the environmental impact of new recreation projects, there must be baseline data on and analysis of the environmental impacts of visitor activities on the watershed. The last baseline inventory, analysis and PEIR with any relevant information is the 2005 RTMP. However, it was not a recreation plan and did not analyze visitor activities or trace them to specific environmental impacts. Its primary focus, rather, was on a particular environmental impact: erosion and sedimentation. It is

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<sup>1</sup> During recreation planning public engagement activities, Marin Water consultants or staff stated that 70 miles of non-system trails currently exist. At a more recent public forum on the Feasibility Study, Shaun Horne explained that the 50-mile figure in the Feasibility Study may result from the closure of non-system trails. If so, we are pleased that this is occurring. However, the important fact is that illegal system trails are being created at an increasing rate. And in the absence of environmental analysis and zoning, we do not know the environmental impacts of either the proliferating non-system trails or the decommissioning of former non-system trails. Continued closure of illegal social trails, especially those that damage natural resources, should continue to be a high priority.

also long out of date. It provides no current baseline of visitor activities or their environmental impacts. Without a current inventory and analysis of environmental impacts from visitor access, it is impossible to determine the environmental impacts of any recreation projects derived from the Feasibility Study or to determine how to avoid or mitigate those impacts. A current inventory and analysis of environmental impacts from visitor access is the essential baseline for determining whether proposed policies and pilot projects reduce environmental damage trends, exacerbate them or have no effect.

We fully concur with the sense of urgency expressed at the March 21, 2024 Watershed Committee meeting that any pilot project must measure its impact on illegal trail use, night riding and illegal trail building. We also concur with the recognition that the expanding web of unauthorized social trails has a massive environmental impact. To determine the effect of pilot projects on these environmentally damaging activities requires first a baseline inventory and analysis that includes illegal bicycle and e-bike use and the construction of illegal trails. It is essential to know where these illegal activities occur and the natural resources they impact. Consequently, proposed recreational zone analysis, which seeks to avoid environmental impacts to sensitive species, plant associations and habitats, should also be completed before pilot projects are authorized.

This environmental review is essential to determine whether a strategy of providing additional recreational access to certain users (mountain bicyclist and e-bicyclists) will:

- (1) reduce the environmental damage resulting from the current strategy of restricting certain visitor activities from trails with little enforcement of these restrictions; or
- (2) increase or have no effect on the current incidence of recreation-inflicted environmental damage, for example, by creating a sense of entitlement to use all trails and not just the ones newly opened to them.

Answers to these questions are essential. They go to the heart of the strategies reflected in the feasibility study.

An answer to these questions is also necessary to better understand the importance of enforcement of any new rules of access and “rules of the road” in preventing environmental impact from visitor access. The insight that enforcement cannot be the sole strategy for protecting the watershed may be correct. However, even under a set of rules that some visitor groups consider more advantageous, there will be some who violate the rules and whose activities continue to degrade environmental resources. The Feasibility Study recognizes that “additional management and enforcement efforts are required to prevent visitors from constructing non-system trails and hiking off trail

through rare plant habitats.” (p. 27) The degree to which the greater trail access given to certain users by pilot projects reduces illegal trail use, night riding and illegal trail building must be known to determine the role of enforcement in any changed visitor access regime. None of this can be known without a system-wide baseline inventory and analysis of current visitor activities and environmental impacts.

An updated and expanded road and trail inventory needs to include elements not included in the inventory done for the 2005 RTMP. It should provide a detailed assessment of the environmental damage from visitor activities to each road and trail (system and non-system), including proximity or damage to sensitive species, plant associations and habitats; damage to other vegetation; invasive plants; evidence of diseased plants; erosion; ruts and gullies; trail widening; soft and muddy areas that deteriorate in wet weather; among others. Environmental impacts should be documented with geo-located photo documentation. The inventory or accompanying analysis should include an assessment of the cause or causes of the environmental damage found. This includes the types of visitor activities that created these environmental impacts including the specific activities that created particular illegal trails. The potential for fragmentation of habitats should also be analyzed in any projects, including the pilot projects.

The Feasibility Report refers to updating the 2005 RTMP. A recreation plan for visitor access is quite different from the prior RTMP which primarily focused on erosion and sedimentation from roads and trails. Because the RTMP and its accompanying PEIR did not analyze recreational or visitor activities, the important environmental issues for analysis here were never considered by the RTMP. Consequently, a new PEIR must be prepared, which can draw as needed on the old RTMP. A recreation plan or visitor access plan and accompanying PEIR must address visitor activities and visitor numbers that have environmental impacts. In short, there is little to update except the road and trail inventory whose focus needs expansion. Our 2023 Comments address this “updating” in greater detail.

The BFFIP identified Best Practices for avoiding the spread of pathogens and invasive plants. These best practices are now applied to Marin Water employees and contractors but not to visitors who engage in the same activities identified by the BMPs as spreading pathogens and invasive plants. Although it may be difficult to apply these Best Practices directly to visitor activities, recreational planning should consider how these BMPs or other measures can be adapted to visitor activities to avoid or mitigate these predicted impacts.

The Feasibility Study recognized that recreation planning and environmental review must consider the One Tam Peak Health Report (p. 14). One Tam’s recently released report, the 2024 One Tam Regional Forest Health Strategy Report, which analyzed the condition of specific native plant communities such as Redwoods, Oak Woodlands and Sargent Cypress, also needs to be included in this analysis.

Although the Feasibility Study provides data on visitor attitudes and interactions, it provides virtually no data or useful information on the more important topic of the environmental impacts of visitor activities and their avoidance or mitigation. We anticipate that a subsequent Recreation Plan or Visitor Access Plan will provide this.

In summary, the updated and expanded road and trail inventory and an environmental analysis of visitor activities and environmental impacts recommended by the Feasibility Study should precede the pilot projects. Without this, pilot projects cannot answer questions about the environmental impacts of increased and modified visitor access those pilot projects propose.

### **Pilot projects are not exempt from environmental review**

Putting bicycles on additional trails or authorizing e-bikes on the watershed land has a physical impact on the environment that requires environmental review. The proposed pilot projects are an example of what Marin Water calls “adaptive management.” This appears to mean to study the environmental and other impacts of the pilot project, and then consider what to do about those impacts later. To our knowledge there is no exemption from environmental review for a project declared to be for adaptive management. Adaptive management is the process of making decisions without perfect knowledge of the consequences and making corrections when consequences are better known. At its most basic level “adaptive management” describes rational decision making. Pilot projects are subject to environmental review as any other projects with a physical impact on the environment.

A major omission from the Feasibility Study is a description of the proposed pilot projects that would give mountain bikes additional trail access and allow e-bikes on the watershed. In 2019, Marin Water rolled a previous e-bike pilot project into the overall recreational planning process for more thorough analysis; the Feasibility Study, unfortunately, provides none.

As has been aired in past Marin Water discussions, there are a host of issues and problems that still need to be addressed in any pilot project that authorizes e-bike access to the watershed. E-bike technology is rapidly evolving, including into powerful electric motorcycles and two-wheeled all-terrain vehicles.

It is impossible to tell the various classes of e-bikes apart. Most Class 2 e-bikes (throttle controlled) have a pedal assist mode, which makes them look like Class 1 e-bikes. More powerful Class 3 e-bikes (up to 28 mph) also are pedal assisted. All classes of e-bikes come in multiple configurations, e.g., road bikes, mountain bikes, all-terrain bikes with fat tires, extended rigs with seats for children.

E-bikes do not advertise or announce what Class of e-bike they are. Most e-bike technology is hidden away in bicycle frames or under cowling. In addition, all e-bikes, regardless of how powerful they are, are virtually silent. Even the most powerful e-bike will not be heard by Rangers and others except at close range. In contrast, off-road gas-powered motorcycles are very noisy and easy to hear from long distances, which in and of itself is a deterrence to their invading MMWD land illegally. About the only way an MMWD ranger will be able to make a positive determination of e-bike Class is by a physical stop to read the e-bike label.

Without solving the e-bike class identification problem, a pilot project will have the effect of authorizing virtually every class of e-bike including more powerful Class 3 e-bikes and all-terrain e-bikes designed for off-trail and rock scrambles. Here are links to articles that describe the many types of Class 1 and 2 e-bikes:

<https://www.bikeride.com/best-class-1-electric-bikes/>

[https://www.bikeride.com/best-class-2-electric-bikes/?fwp\\_paged=3](https://www.bikeride.com/best-class-2-electric-bikes/?fwp_paged=3)

Some consider Class 1 e-bikes tame and lacking the power to damage the environment since they operate by assisting the pedals. This is inaccurate. The amount of pedal assist is adjustable on many e-bikes up to full throttle control. Another reason some consider Class 1 e-bikes tame is they are limited to motors of 250 watts of nominal power (about the same power as an adult male). However, those motors have access to what is called “peak power” which gives these e-bikes much more power and torque than this motor rating would indicate. This is determined by battery voltage and controller amperage. For example, a bike with a nominal motor rating of 250 watts that has a 36-volt battery and a 15A controller can produce 540 watts at peak power.  $36 \times 15 = 540$  – more than twice the nominal power rating.

For this reason, Class 1 e-bikes, which all have nominal 250-watt motors, come in a variety of battery and controller configurations so that users can customize the amount of power and torque they would like, e.g., to climb steep trails rapidly.

Why is this important? The average in-shape adult male is capable of exerting about 250 watts of power. A Class 1 e-bike with a 250-watt motor without peak power doubles that power and resulting torque to about 500 watts (power of rider + e-bike). However, using peak power, the e-bike in the above example would have three times the power and torque of the average male. This is why e-bikes are touted for uphill runs: they have much more power and torque than a mountain bike which gives them far greater ability to do environmental damage.

A Class 3 e-bike, which may look like a Class 1 e-bike, is even more powerful. And e-bikes are being made that go over 50 mph. These are expensive but as with most new

technology, costs will come down. These fast and powerful “motorcycles with pedals” are not easy to distinguish from other e-bikes.

Unlike a gas engine, an electric motor can apply its torque from a resting state, with no need for a clutch or transmission to transfer its power to the wheels. For this reason, railroad engines are diesel electrics, with the diesel engine running an electric generator and electric motors powering the wheels. This torque gives an electric powered vehicle the ability to wreak havoc on a sensitive dirt path.

Another environmental damage factor to include in pilot projects is the greater distance mountain bikes and e-bikes travel on watershed roads and trails than do people on foot. The Feasibility Study estimates that hikers hike an average of 3.94 miles and bicycles do a median trip length of 8.5 miles. (p. 152) It gave no estimate for the length of e-bike trips, but we can reasonably assume they are longer than mountain bikes, perhaps 15 miles on average. This means that, based on travel distance alone, the average mountain biker has over double the environmental impact of the average hiker; and the average e-bicyclist has over three times the environmental impact of the average hiker. This is irrespective of the other factors such as motor torque, speed, weight, competitive activities, night riding, off-trail activities or illegal trail building that exacerbate these impacts.

Another factor that must be included is the ability of mountain bikes and e-bikes to routinely access and damage more remote environmentally sensitive areas of the watershed; Feasibility Study analysis of watershed roads and trails use, which shows most pedestrian activities confined to the periphery of the watershed and bicycles predominating in more interior areas, confirms this environmental stressor. (p. 148)

Pilot projects involving mountain bikes and e-bikes must include ways to determine the impact of these vectors for environmental damage.

Another factor that must be included in pilot projects is an estimate of the additional visitor visits and activities of all types reasonably estimated to result from any access rule changes made by pilot projects. In the same way that the completion of intersecting trails has increased the numbers of visitors and their duration on the watershed, pilot project authorization of additional visitor activities on watershed roads and trails predictably will increase the seasonal and annual number of visitors to the watershed. These estimates are essential to identify and avoid or mitigate the environmental impacts of additional visitors. Measurement of visitor activities by season is especially important because mountain bikes and e-bikes can do disproportionate environmental damage when trails are wet or muddy.

As discussed earlier, it is essential that pilot projects identify the impact of these projects on system-wide illegal trail use, night riding and illegal trail building. It is our understanding that one thought about how to do this is to use Marin Water

enforcement data. The only Marin Water enforcement data we have seen is inappropriate for this purpose. In 2023, out of a total of 730 citations, only 9 related to bicycle activities. (1.2%). For the seven years from 2018 to 2023, only 133 of 5494 total citations related to bicycle activities (2%). The only major baseline conclusion one can draw from existing enforcement data is that there has been a pattern of systematic nonenforcement of existing regulations concerning bicycle and e-bicycle access to watershed roads and trails. Because of nonenforcement of existing rules, there is no baseline of enforcement activity data on which to base any conclusions about the impact of pilot project on illegal trail use, night riding and illegal trail building throughout the watershed. As discussed earlier, a baseline road and trail inventory and environmental analysis are required for this.

Pilot projects should in advance establish metrics of behavior change system-wide for illegal trail use, night riding and illegal trail building for determining the success or failure of the pilot projects.

Another issue not addressed by the Feasibility Study is what enforcement, if any, would accompany the pilot projects. Is compliance with the new access rules to be left solely to the individual consciences of visitors? Or will Marin Water commit to enforcement of new visitor access regulations? Pilot project would look quite different depending on this decision alone. This reinforces the necessity of a current baseline system-wide road and trail inventory and environmental analysis prior to conducting pilot projects. Without these, pilot projects are likely to be more “political footballs” than sources of rational decision-making.

Highly relevant to any e-bike pilot project is that nearly two-thirds of Feasibility Study visitor survey respondents oppose unrestricted e-bikes access to the watershed. In the visitor survey, 64% of survey respondents opposed unrestricted access of e-bikes to the watershed. (p.141) This included 37% who opposed any e-bike access or would authorize it only under the ADA and 27% who would authorize it only by permit. Clearly, a large majority of survey respondents do not want a free-for-all of anonymous difficult to identify e-bikes on the watershed. Given these survey results, we would have expected the Feasibility Study to discuss e-bike permit options.

### **Other comments on Feasibility Study**

- **The Feasibility Study Ignores the issue of capacity limits**

Our 2023 Comments discussed the importance of recreational planning to consider the recreational carrying capacity of the watershed. One can read the Feasibility Study as encouraging additional recreational opportunities to honor the desires of every visitor activity group. We believe the failure to even identify capacity limits as a recreational planning issue and to discuss this subject is a serious failure. Now is the time to open a



dialogue on this subject rather than waiting until population pressures and new recreational technologies have overrun the watershed with irreparable environmental damage. Too much of the watershed today is already in the Deferred Action Area. We realize that this is a difficult subject because of the history of recreation on the watershed and the number of access portals to the watershed. But if clean water and preservation of the natural environment are truly Marin Water's first priorities, this is a subject that must be discussed.

- **Marin Water's recreational planning documents lack a coherent narrative on the creation of illegal non-system trails.**

To stem the creation of illegally created non-system trails, there must be a coherent narrative concerning the creation of these trails. This is lacking in the Feasibility Study, which has statements that are not congruent with the RTMP or current Marin Water board discussion of this subject.

The RTMP states regarding illegally created non-system trails:

Because there is no direct prohibition of hiking off-trail (or "cross-country"), some illegal routes originally constructed by bicyclist become adopted by hikers. For trails such as these, or for other routes decommissioned where the success is being thwarted by continued use, area closures by notice of the Superintendent of Watershed Resources is a possible enforcement tool. (RTMP, pp. 5-6 – 5-7)

In discussing the problem of persistent illegal trail building, the RTMP lists as an option that "the majority of the District effort might be directed to patrol and stake out of the persistent illegal trail builders." (p. 5-5) In the context of the prior statement about illegal routes constructed by bicyclists, this enforcement option is directed at bicyclists.

In contrast, the Feasibility Study first includes a statement that appears to condone and romanticize the creation of illegal non-system trails:

Over the years, visitors have created a network of social (non-system) trails, a testament to the area's allure and the collective impact that the desire to connect with its natural wonders can have. (p. 13)

It then appears to ascribe greater blame to hikers for creating non-system trails:

Hikers choosing to travel off system trails have contributed to persistent non-system trails, which are a significant challenge within areas under the Project Restore program. (p. 54)

Bicyclists are also known to create and utilize non-system trails in a similar fashion as hikers. (p. 54)

It then returns to generalities resonant of the RTMP about “constructing” non-system trails:

Best management practices can help prevent damage to plants and habitat from this kind of work [road and trail maintenance and construction], but additional management and enforcement efforts are required to prevent visitors from constructing non-system trails and hiking off trail through rare plant habitats. (p.27)

To address the serious environmental impact of these activities, there needs to be a coherent and comprehensive narrative of the problem of illegal trail building. The “offhand” remarks on this subject in the Feasibility Study do little to contribute to a better understanding of this problem and to its solution.

- **The Feasibility Study failed to recognize that the concept of “safety” changed dramatically with the pandemic**

The Feasibility Study touts a 2022 survey showing that most visitors to the watershed felt “safe” (pp. 64, 67), and that a higher percentage felt safe than on a 2012 survey. The question posed was: “In general, do you feel safe visiting Mt. Tam?” (p. 136) The Study, however, ignores that the concept of personal safety changed dramatically with the coming of the pandemic. Fear of COVID 19 caused people to become afraid to be around other people. All the social situations that people previously enjoyed and made life meaningful such as getting together with friends, in-person meetings, theaters, restaurants, religious services, and public transportation became unsafe. As a result, open space, such as the watershed, was one of the few places people felt safe. Thus, any conclusion about safety from this survey relates more to the pandemic than the watershed.

The question of safety was also poorly framed, particularly in the context of the changed concept of safety from the pandemic. The survey could have asked the question in a way that would have avoided this problem, e.g., “Were there any activities or conditions on Mt. Tam that made you feel unsafe?” However, answers to the question actually asked tell us virtually nothing about recreational activities on the watershed.

- **Recreational zoning analysis should be applied to all projects and recreational policy determinations**

The Feasibility Study recommends that recreational zoning analysis should be applied only to new projects. (p. 421) It provides no justification for this limitation. We think this should be openly discussed. We would be interested in the reasons for not applying recreational zoning to all projects and recreational policy determinations. If this would identify environmental impacts of existing roads and trails, we believe that good

environmental stewardship would be to acknowledge these environmental impacts and consider options for eliminating or mitigating them to the extent possible.

Sincerely,



David Long  
Co-President  
Marin Chapter California Native Plant Society

Cc: Ben Horenstein, General Manager, MMWD  
Shaun Horne, Watershed Resources Manager, MMWD

**APPENDIX A**  
**Comments on Environmental Review of Watershed Recreation Management Projects**  
**by Marin Chapter California Native Plant Society and Marin Audubon Society**  
**April 6, 2023**



MARIN AUDUBON SOCIETY



Marin chapter  
California Native  
Plant Society

[www.cnpsmarin.org](http://www.cnpsmarin.org)

April 6, 2023

Monty Schmitt, Chair  
Board of Directors  
Marin Water  
220 Nellen Avenue,  
Corte Madera, CA 94925

Subject: Comments on Environmental Review of Watershed Recreation Management Plan Projects from Marin Audubon Society (MAS) and Marin Chapter of the California Native Plant Society (CNPS).

Dear Marin Water Board of Directors,

MAS and CNPS are devoted to preserving the clean water and healthy biodiversity of the Marin Water watershed. We are pleased that Marin Water is engaging in a process to create a Watershed Recreation Management Plan (RMP). The Mount Tamalpais watershed that Marin Water manages has become a heavily used recreational area. Unfortunately, recreational activities, including those that are unauthorized and illegal, have caused predictable and serious environmental damage to the watershed. A comprehensive review of recreational activities on the watershed and their environmental impacts is long overdue. The RMP constitutes a project or series of projects that require the preparation of an Environmental Impact Report.

The environmentally destructive history of recreation on the watershed evidences to a near certainty that recreational activities and persons who engage in recreational activities on the watershed will have a significant environmental impact that requires an EIR for projects resulting from Marin Water's Recreation Management Planning. In addition, we believe that as a good steward of the watershed, Marin Water should conduct a comprehensive assessment of the past environmental impacts of recreational activities and remediate those impacts, including closing and restoring the extensive network of non-system often illegally created trails that now *degrade the watershed*.

## Applicable CEQA Requirements

An agency must prepare an EIR whenever it is presented with a “fair argument” that a project *may have* a significant effect on the environment, even if there is also substantial evidence to indicate that the impact is not significant. (*No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75; see also *Friends of B Street v. City of Hayward* (1980) 106 Cal.App.3d 988; Guidelines § 15064(f)(1)) The EIR requirement is the heart of CEQA. (Guidelines § 15003(a)) A purpose of the EIR is to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action. (Guidelines § 15003(d)) CEQA is intended to afford as full as possible protection to the environment, and imposes a duty to minimize environmental damage, where feasible. (Guidelines § 15003(a),(f)) Consequently, a project should not be approved if feasible alternatives or mitigation measures are available that would substantially lessen any significant effects that the project would have on the environment. (Guidelines § 15021(a)(2)) Mandatory findings of significance about a project must include:

Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? (Guidelines, Appendix G, XXI and IV Biological Impacts)

Projects must also be analyzed for whether they result in substantial soil erosion or loss of topsoil. (Guidelines, Appendix G, VII); and whether they substantially alter existing drainage patterns of a site or area that result in substantial erosion or situation on or off site. (Guidelines, Appendix G, X) Projects must also be analyzed for whether they exacerbate wildfire risks. (Guidelines, Appendix G, XX)

The agency must also make a determination about whether the project conflicts with any local policies or ordinances protecting biological resources. (Guidelines, Appendix G, IV Biological Impacts) Marin Water’s Watershed Biodiversity, Fire and Fuels Integrated Plan (BFFIP) is a policy protecting the biological resources of the watershed. Consequently, RMP projects must be reviewed for conflicts with the BFFIP.

In addition, the agency must consider whether the project would induce substantial unplanned population growth directly or indirectly. (Guidelines, Appendix G, XIV)

After an agency determines there is substantial evidence that a project may have a significant effect on the environment, the agency must prepare an EIR unless the legal requirements for use of an alternative method of review are met. The two alternative methods are (1) use a previously prepared EIR which would adequately analyze the project at hand; or (2) “determine, pursuant to a program EIR, tiering or other appropriate process, which of the projects effects were

adequately examined by an earlier EIR or negative declaration.” (Guidelines §15063(h)) A recent case held that “if any aspect of the project triggers preparation of an environmental impact report, a full environmental impact report must be prepared...” *Farmland Protection Alliance v. County of Yolo* (2021) 71 Cal. App. 5th 300)

In determining whether a project has a significant effect on the environment, an agency must consider both “direct physical changes in the environment which may be caused by the project and reasonably foreseeable indirect physical changes which may be caused by the project.” (Guidelines §15064(d)) An indirect physical change is a “physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project.” (Guidelines §15064(d)) “[W]here a physical change is caused by economic or social effects of a project, the physical change may be regarded as a significant effect in the same manner as any other physical change resulting from the project.” (Guidelines §15064(e)) CEQA Guidelines emphasize that effects include “indirect or secondary effects which are caused by the project and are later in time or farther removed in distance” (§15358) And these may include “growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.” (Guidelines §15358)

The agency must also consider cumulative effects that are significant and cumulatively considerable. (Guidelines §15064(h))

An EIR must be prepared if the cumulative impact may be significant and the project’s incremental effects, though individually limited, is cumulatively considerable.

“Cumulatively considerable” means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. (Guidelines §15063)

Cumulative impacts are further defined as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” “Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.” (Guidelines §15355)

**Recreational activities are subordinate to the primary purposes of Marin Water to provide reliable high quality water and manage natural resources in a sustainable manner**

The mission of Marin Water is to “manage our natural resources in a sustainable manner and to provide our customers with reliable, high-quality water at a reasonable price.” (Marin Water Policy no. 1) Consistent with this mission, the number one value of Marin Water is to “promote environmental stewardship and sustainability.” Consequently, Marin Water’s goals include:

- Provide responsible stewardship of land under district management, balancing existing mandates to safeguard ecological integrity, protect against wildfire, and maintain water quality.

- Provide for visitor access and activities on watershed lands consistent with the constraints of watershed stewardship.

Marin Water's Policy 7 elaborates on the importance of these priorities:

The Mt. Tamalpais Watershed is one of Marin's most valuable natural resources, providing and protecting the major source of domestic water for Marin Municipal Water District ("District") residents. Besides this primary purpose, the watershed is held in trust as a natural wildland of great biological diversity, as scenic open space and as an area for passive outdoor recreation for Marin and much of the Bay Area. Passive outdoor recreation is defined as those activities that are based on nature and that require little or no development or facilities.

The mission, number one value, and goals of Marin Water are further reinforced in Marin Water Policy 7 which states: "The District will ensure that public recreation activities on watershed lands are consistent with the district's mission to safeguard water quality and protect natural resources." (5.1 Goals) These statements of Marin Water's purpose make abundantly clear that recreation is subordinate to the primary reasons for Marin Water's existence to provide water and protect natural resources.

### **Recreation has significantly degraded the environment of the Watershed**

Recreation degrades the environment in many different ways. These environmental harms have been acknowledged by Marin Water. The 2005 Watershed Road and Trail Management Plan (RTMP), which focused primarily on erosion and sedimentation from roads and trails, stated that "[r]oads and trails can have many undesirable effects on the environment." (RTMP, p. 2-6) It then listed, but its Program Environmental Impact Report (RTPEIR) did not analyze or seek to mitigate, the many ways that the recreational uses of roads and trails can significantly damage the watershed.

They can increase the number of visitors and intensify human use in seldom-visited areas. They can provide migration routes for non-native invasive plants into previously uninfested areas and facilitate the spread of Sudden Oak Death syndrome. They can fragment habitats (in some cases environmentally sensitive habitats) by creating migration or foraging barriers to some wildlife. They can physically remove habitat or a portion of it. Moreover, construction of roads and trails can disturb or destroy, directly or indirectly, plants or animals that are legally protected. Wetland areas, riparian areas, serpentine soils (which are fragile, erodible soils that can contain a host of endemic, rare and endangered species of plants), and active nesting or roosting areas, are all sensitive habitats that require protection in one form or another. Furthermore, an increase in the density and amount of human presence in previously untrammled or seldom visited areas leads to an increase in the severity of effects and a proliferation of additional effects. (RTMP, p. 2-6)

We will discuss each one of these environmental harms as it applies to the Watershed.

- ***Roads and trails can increase the number of visitors and intensify human use in seldom-visited areas.***

The total number of visitors engaging in recreational activities on the watershed has increased significantly from year to year and is now estimated at two million or more visitors annually. (Information provided by Marin Water consultants in Marin Water public engagement session on the RMP)

Large numbers of people on the watershed can have an environmental impact regardless of the recreational activities in which they engage. A reasonably foreseeable impact of additional recreational users on the watershed is significant additional environmental damage. This is clear from the history of recreational growth on the watershed and its relationship to accelerated environmental damage such as proliferation of illegally created trails. Environmental analysis must consider the overall environmental impact of all recreational activities as well as impacts of specific ones such as mountain biking, e-bike use or walking. Any trail improvements, additional trail interconnectivity or increased bicycle or electric bicycle access to watershed trails is certain to increase this growth trajectory. All projects must be analyzed for whether they will increase the number of visitors to the watershed. (Guidelines, Appendix G, XIV)

One policy of Marin Water that we believe has led to a significant growth in recreational activity on the watershed is the promotion of trail “interconnectivity”. This is a policy that has favored the creation of trails that interconnect with other trails on the watershed or on adjoining lands to create a circuit that can be traversed without having to return on the same path. This has been sought by certain user groups as a way of creating a more satisfying recreational experience. The consequence of this policy has been to dramatically increase the number of bicycles and total recreational users on the watershed.

We are of the firm opinion that the capacity of the watershed to accommodate additional recreational activities has been reached, and any further growth in recreational activities will cause additional significant environmental damage that will be impossible to mitigate. The express legislative intent for CEQA recognizes that the capacity of the environment is limited, capacity thresholds should be determined and action should be taken to prevent such thresholds from being reached. (CEQA Statute, chap. 1, §21000 (d)) Environmental review must analyze the overall environmental impact of increasing numbers of recreational users on the watershed and consider options for mitigating the environmental harm anticipated from any expected influx of recreational users.

In similar circumstances, other public land managers have analyzed and implemented measures to reduce and further regulate visitor access. Two recent examples are Muir Woods and Yosemite National Park. The environmental review for the RMP needs to include serious analysis of measures to reduce overall recreational activities and visitor access to the watershed as a whole and to its most environmentally sensitive and remote areas.



- ***Roads and trails can provide migration routes for non-native invasive plants into previously un-infested areas***

The RTMP identified roads and trails as vectors for non-native invasive plants to infest pristine natural areas. Significant areas of the watershed are invaded by broom. According to the BFFIP, most of the watershed is susceptible to broom invasion. (p. 3-6) As of 2019, the watershed had 690 acres of unmanaged broom with a total broom infestation of 1400 acres. (p. 3-5) Even though Marin Water has targeted large areas of broom for restoration, broom and other invasive weeds continue to spread. As of 2019, broom was continuing to infest an additional 56 acres per year on average. (p. 7-7) Indeed, the BFFIP reported that invasive species are spreading at an exponential rate. (p. 3-5) Although the 2005 RTMP identified recreation as major vector for the spread of invasive plants, its RTPEIR did not analyze this environmental impact or seek to mitigate it. And neither did the BFFIP.

Marin Water maps show that invasive plant infestations on the watershed are associated with areas of high recreational use. The BFFIP recognized that disturbance can cause huge broom infestations and that the main broom and yellow star thistle infestation were in high traffic areas. (BFFIP, p. 3-6 and accompanying maps of weed infestations) The BFFIP pointed to fuel breaks as an example of a disturbance causing broom infestations. Recreational activities can be equally disturbing to the natural environment. This is particularly so for recreation that is off trail or on non-system illegally created trails. Indeed, Marin Water has recognized that the areas most susceptible to weed infestations are areas of high recreational activity: The Marin Water Best Management Practices (BMPs) for weed prevention call for monitoring and maintenance of staging areas for recreational use for new weed infestations in recognition of the great danger of infestations from recreational uses (BFFIP, Appendix F):

Implementing a periodic monitoring program for detecting new weed infestations in highly susceptible locations such as pull outs, trailheads, picnic areas, parking lots, and concessionaire locations. (BMP-1. 1.a.)

Maintain trailheads, picnic areas, roads leading to trailheads, and other areas of concentrated public use in a weed-free condition. Make high-use recreation areas a high priority for weed detection and eradication **if not already heavily infested.** (BMP-1. 3.b.)(emphasis added)

The BFFIP recognized that the vegetation management projects it authorized could also spread invasive plant infestations. It responded to this environmental impact by pointing to the Marin Water BMPs referred to above. The BMPs require that project operations begin in non-infested areas and restricts the movement of equipment and machinery from weed-contaminated areas to non-contaminated areas. The BMPs require staging areas to be in weed-free areas. They require that travel be avoided or minimized through weed-infested areas or that travel be restricted “to those periods when spread of seed or propagules is least likely, such as prior to seed development.” (BMP-2) They also require equipment be washed before traveling on the watershed. (BFFIP, p. 3-22)

Every day, bicycles and hikers are doing the things Marin Water employees and contractors are prohibited from doing because they spread invasive plants: traveling from weed infested areas to areas that are still pristine; traveling when seeds of invasives are on the ground and available to be imbedded in tires or shoe soles for germination in a weed-free area; and traveling into weed-free areas without washing tires, other equipment, cuffs of pants and the soles of shoes.

Marin Water documents candidly acknowledge that recreational activities are a major cause of invasive plant infestations. They specify a set of procedures employees and contractors must follow to prevent the introduction and spread of invasives on the watershed. However, recreational users remain free to spread invasives by doing all the things that employees and contractors are prohibited from doing.

A reasonably foreseeable consequence of any project that expands recreational activities into previously un-infested or lightly infested areas of the watershed is the spread of non-native invasive plants. To date, Marin Water has not conducted any environmental analysis or proposed mitigation for the admitted cause of much of its huge infestation of invasive plants – recreational activities. This must be a part of any environmental impact report for the RMP.

- ***Roads and trails can facilitate the spread of Sudden Oak Death syndrome.***

The RTMP recognized that roads and trails can facilitate the spread of Sudden Oak Dead (SOD). In the decades following the preparation of the RTMP and RTPEIR, other phytophthora species have attacked and devastated parts of the watershed including destroying a madrone forest.

Marin Water BMPs for plant pathogen control focus primarily on restoration sites; however, the pathogen transmission vectors the BMPs address operate throughout the watershed. (BMP-5) Plant pathogens can be spread through mud, debris and soil that may be lodged in tire treads and in the soles of shoes. As a result the BMPs require that “[e]quipment, vehicles and large tools must be free of soil and debris on tires, wheel wells, vehicle undercarriages, and other surfaces before arriving at the planting area.” The BMPs require extensive cleaning and sanitizing of equipment, clothing and footwear, which must be free of debris, mud and soil. (BMP-5)

Again, recreational users are freely moving through the watershed, including on non-system dirt trails at all times of year, muddy or dry, without any of these environmental mitigations to avoid the introduction and spread of plant pathogens. This too must be the subject of environmental analysis and proposed mitigation for RMP projects.

- ***Road and trails can fragment habitats (in some cases environmentally sensitive habitats) by creating migration or foraging barriers to some wildlife***

By their very creation and existence, the 70 miles of non-system illegally created trails on the watershed are fragmenting habitats and bringing unauthorized recreational activities into areas that had been largely off-limits to human activities. The fragmentation caused by existing non-system trails should be analyzed as a matter of sound watershed stewardship. And the potential for fragmentation must be analyzed for any new projects under the RMP as system trails can also fragment habitat.

- ***Roads and trails can physically remove habitat or a portion of it***

A major source of habitat destruction from recreational activities is the growth of non-system illegally created trails, which have proliferated on the watershed. In 2005 the RTMP reported 50 miles of non-system trails created by recreational users. The current estimate is 70 miles of non-system trails, a 40% increase. This means that recreational users have created over a mile of additional unauthorized environmentally damaging trail each year on average. If the RTMP had been a recreation plan, it would have to be considered an abject failure.

The major focus of the RTMP and its RTPEIR was erosion and sediment from roads and trails that would end up in reservoirs. It largely ignored seriously degraded and eroded trails that did not flow into reservoirs. Some of these would have to be considered environmental disasters. They are now “zombie trails”, trails that are listed on trail maps but are so degraded and eroded as to have largely lost their function as pathways. These trails are like open wounds in otherwise largely pristine natural areas. On large portions of these trails, the trail has eroded to a rocky gully formed into a series of small cliffs that must be climbed or jumped down. And some of these trails are in sensitive native plant communities. Examples include the Temelpa Trail and the Simmons Trail.

The RTMP tied the growth of illegal trails directly to recreational uses:

Because there is no direct prohibition of hiking off-trail (or “cross-country”), some illegal routes originally constructed by bicyclist become adopted by hikers. For trails such as these, or for other routes decommissioned where the success is being thwarted by continued use, area closures by notice of the Superintendent of Watershed Resources is a possible enforcement tool. (RTMP, pp. 5-6 – 5-7)

The RTMP also identified the problem of persistent illegal trail builders. In discussing options for dealing with the significant problem of illegally constructed trails, it lists as an option that “the majority of the District effort might be directed to patrol and stake out of the persistent illegal trail builders.” (P. 5-5)

It is obvious that the prescriptions of the RTMP, made in the absence of a recreation plan and the environmental analysis that such a plan requires, have failed. An important objective of the RMP must be to bring to an end the creation of non-system trails by recreation users, to close off and stop the recreational use of existing non-system trails and to restore the habitat that their unauthorized construction has degraded.

- ***Construction of roads and trails can disturb or destroy, directly or indirectly, plants or animals that are legally protected***

This history of recreation users creating non-system trails on the watershed demonstrates that the creation of new environmentally damaging non-system trails is a reasonably foreseeable consequence of additional recreational access to existing trails, new trails or of actions that have the potential to increase the volume of, or certain types of, recreational activities on the

watershed. The environmental analysis for the RMP must include an analysis of the potential for new unauthorized trails to be constructed by recreational users and for those trails to disturb or destroy, directly or indirectly, plants, animals, plant communities and animal habitats that are legally protected. This analysis must also be conducted for new recreational uses on existing system roads and trails (e.g., ebikes) since new methods of recreation or more recreational users on existing trails have the potential for greater environmental impacts than existing recreational uses.

- ***Wetland areas, riparian areas, serpentine soils (which are fragile, erodible soils that can contain a host of endemic, rare and endangered species of plants and active nesting or roosting areas, are all sensitive habitats that require protection in one form or another***

The watershed includes wetland areas, riparian areas and serpentine soils that contain a host of endemic, rare and endangered species of plants. It also includes active nesting and roosting areas for the Northern Spotted Owl (NSO). The watershed's NSO habitat is particularly valuable because Marin County has one of the largest and most stable populations of this special status species. A recent study conducted for the Mid-Peninsula Open Space District found that ebikes emit noises that are both higher and lower pitched than the human ear can hear that can disturb nesting bats. This is significant for environmental analysis since eight species of special status bats are found on Marin Water's lands.

Serpentine areas and grasslands are also of particular concern. These are open areas with few obstructions such as trees and bushes and as a result are prone to illegal bike activity and foot traffic. Research has found that significantly more informal trails are created by recreational activities in grasslands, which is consistent with their easier access. (Appendix, Study #1) Some of the most open areas on the watershed are serpentine that harbor a disproportionate number of sensitive protected plant species. RMP projects must be thoroughly analyzed for their potential impacts on serpentine areas.

Environmental analysis for RMP projects must specifically analyze the threats of proposed recreational uses to all areas with protected plants and plant communities and animals and their habitats and provide mitigations reasonably calculated to leave them uninvaded and untrammelled.

- ***An increase in the density and amount of human presence in previously untrammelled or seldom visited areas leads to an increase in the severity of effects and a proliferation of additional effects***

The RTMP noted that an increase in the density and amount of human presence [recreational activities] in untrammelled or seldom visited areas leads to an increase in the severity of effects and a proliferation of additional effects. (p. 2-6) Another term for this is "cumulative impacts". The BFFIP, in a similar vein, noted that ecosystem risk factors interact synergistically to amplify each other:

Studies of major changes in the world's ecosystems, such as desertification and deforestation, show that changes stem from synergistic interactions in which the combined effects of multiple causes are amplified by reciprocal actions and feedback loops. Simply put, the sum total of biodiversity losses can be increased when risk factors interact. (p. 3-1)

The BFFIP elaborated on this cascade of environmental impacts that add up to environmental damage greater than the sum of the individual impacts:

Fire, invasive species, forest disease, and climate change pose a combined threat to the health of the local ecosystem. The composition of native species, native habitat, and ecosystem functions are threatened by competition with invasive species, loss of food sources for wildlife, reduced recruitment of replacement trees in the canopy, increasing temperatures that drive local extinction, erosion, water quality, and changes in fire frequency and intensity. The combined effects of the interacting threats pose the risk of a cascade of changes that affects the entirety of the ecosystem. (p. 3-3)

The BFFIP did not consider the environmental damage from recreational activities. However, as acknowledged by the RTMP, recreational activities are directly related to the spread of invasive species and forest disease. And in urban-proximate settings, the major cause of wildfires is human ignition. Recreation is an additional “interacting threat” that contributes to the cascade of changes now degrading the watershed. The environmental damage recreation has done and will do in the future if not constrained is significant in its own right. The environmental damage from recreation also exacerbates and magnifies the cascade of other threats to the watershed including fire, invasive species, forest disease and climate change. Recreation fully meets the test of cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” (Guidelines §15355)

### **RMP projects must be reviewed for consistency with the BFFIP in an EIR**

All RMP projects must be reviewed under CEQA for conflicts with the Biodiversity, Fire, and Fuels Integrated Plan (BFFIP) which adopted policies that protect biological resources on the watershed. Under CEQA, a conflict between a plan or ordinance and the Project is a significant impact that must be disclosed and analyzed in an EIR. (See *Pocket Protectors v. City of Sacramento* (2005) 124 Cal.App.4th 903, 929-36; CEQA Guidelines, Appendix G, IV Biological Impacts)

The 2019 BFFIP serves as the roadmap to maximize ecological health and enhance existing significant biological resources on its watershed lands while at the same time seeking to minimize fire hazards. The BFFIP created three major ecosystem categories that it applied to the watershed. The most pristine natural areas of the watershed were placed in the Ecosystem Preservation Zone. Land still dominated by native species but threatened by invasive species and plant pathogens was placed in the Ecosystem Restoration Zone; this zone has two subzones determined by proximity to existing infrastructure and whether natural resources are at high risk of permanent degradation in the event of a high intensity wildfire. The most environmentally degraded areas were placed in a category called the Ecosystem and Fuels Deferred Action Areas. Land in this category is dominated by “large, persistent populations of perennial weeds, hard to

access stands of diseased trees, lack of special-status species, and diminished ecosystem function.” (p. ES-4)

The BFFIP anticipates that the Ecosystem Preservation Zone, the most ecologically pristine zone, will stay that way with little effort. The BFFIP anticipates that the ecosystem in the Ecosystem Restoration Zones can be improved within current resources. In contrast, land in the Ecosystem and Fuels Deferred Action Area is viewed as beyond the ability of Marin Water to make significant ecosystem improvement with current funding. Although the BFFIP does not discuss the factors that caused the environmental degradation on which these categories are based, there can be no doubt that recreation on the watershed was a major contributor.

These Ecosystem categories are highly relevant to environmental impact analysis for the RMP and provide a baseline for environmental impact analysis.

- **The Ecosystem Preservation Zone**

This includes the most pristine natural areas of the watershed. Native plants and wildlife flourish in this zone and invasive plants and forest pathogens have minimal impacts. Here the focus is “the preservation of ecosystem health, including the persistence of special-status plant species and communities.” “The District’s wildfire and biological goals are met within this zone”. With a “minimization of disturbance” this zone can remain free of established weed populations. It notes that Marin Water’s “long-term strategy is to *maintain the existing conditions without increasing effort.*” (p. 3-40)(emphasis in the original)

We believe that any additional recreational activities in the Ecosystem Preservation Zone would violate the “minimization of disturbance” criterion, environmentally degrade the area and defeat the strategy to “maintain existing conditions without increasing effort”.

- **Ecosystem Restoration Zone**

The Ecosystem Restoration Zone is dominated by native species but has diminished ecosystem function “due to disease, fire suppression, and/or weed invasion.” The focus here is on ecosystem improvement. Weed populations are present but with sufficient effort could be contained or eliminated. The BFFIP notes, however, that “the District’s biological goals are not met within this zone at this time, but significant gains are possible.” (BFFIP, p. 3-40)

This is a critical category as well for environmental analysis. Areas in this category may be one step away from being classified as a Deferred Action Area in which Marin Water has largely given up all hope of restoring to ecosystem health. Since biological goals are not met in this zone, additional recreational activities would threaten to further degrade these ecosystems without the possibility of remediation.

The BFFIP constitutes a commitment and plan of action by Marin Water to protect its most pristine natural areas and to improve and reverse the degradation of the ecosystem health of areas of the watershed that are not yet significantly degraded by invasive plants and disease. The RMP must operate within the parameters of the BFFIP, and environmental analysis under the RMP

must assure that this is case. Environmental analysis for the RMP must analyze the effects of recreation uses and users in amplifying existing environmental risks. RMP environmental analysis, for example, should consider whether an RMP project could directly or indirectly result over time in land in the Ecosystem Preservation Zone being downgraded to the Ecosystem Restoration Zone, or from the Ecosystem Restoration Zone to a Deferred Action Area.

The BFFIP analyzed the cascading, interrelated environmental threats of fire, invasive plants, plant pathogens and climate change. Recreation, which was not analyzed in the BFFIP, is a threat of the same order that requires the same level of environmental analysis as the BFFIP.

### **The RTPEIR cannot be used to avoid EIR review of RMP projects**

It should be abundantly clear that there is substantial evidence that Recreation Management Plan projects may have a significant effect on the environment (Guidelines §15002) Many reasonably foreseeable physical changes may be caused by recreation projects. These are discussed above and have been acknowledged by Marin Water. Any project which, for example, increases the total number of recreational users or the intensity of recreational activities on the watershed or authorizes new recreational uses on existing roads and trails will result in reasonably foreseeable environmental damage. Indeed, this is a major conclusion that must be drawn from the history of recreational activities on the watershed.

It has been suggested, however, that Marin Water could avoid preparing an EIR for RMP projects by tiering off or supplementing the Programmatic Environmental Impact Report (RTPEIR) prepared for the 2005 Road and Trail Management Plan (RTMP). Because of the limitations of the RTPEIR, this would not comply with the requirements of CEQA.

- **The RTPEIR did not address the environmental impacts of RMP projects**

The RTMP explicitly states that it is not a recreation plan and did not “reconsider or change the bicycle use or access policies within the Watershed” (RTMP, p. 1.9) or consider any other new or changed recreational uses. It assumed no change in Marin Water rules about access to particular roads and trails. The RTMP’s primary focus was erosion and sedimentation resulting from roads and trails. The only environmental impacts examined in the RTPEIR were those from projects proposed in the RTMP.

As discussed above, the RTMP identified many adverse environmental impacts of roads and trails. However, the RTPEIR did not analyze or seek to mitigate these impacts. Its focus was on road and trail modifications needed to address erosion and sedimentation. The RTPEIR made recommendations for decommissioning, abandoning, rerouting and re-vegetating sections of roads and trails, but, again, the primary focus was on erosion and sedimentation. The RTMP contains some observations and predictions about trail use, but this was not based on an analysis of recreational uses or users in the RTPEIR. And the RTPEIR did not analyze the environmental impacts of various recreation scenarios resulting from constructing or modifying trails to authorize different or expanded recreational usages. Nor did it analyze the impacts of particular recreational activities or the overall impacts of the large number of visitors engaging in recreational activities on the watershed.

Clearly, any projects proposed through the current Recreation Planning Process “would have effects that were not examined in the program EIR.” (CEQA Guidelines sec. 15168(c)(1)). Because the RMP is not within the scope of the RTPEIR, it should be treated as a separate project, subject to the fair argument standard, and requiring a new Initial Study leading to further environmental review. (*Id*; *Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4<sup>th</sup> 1307, 1321.). Indeed, we believe these effects are so apparent and profound that Marin Water would be wise to not conduct an Initial Study, but go directly to an EIR.

- **The RTMP is obsolete**

The useful life of the RTMP was estimated to be 20 years. It was issued in 2005 and that 20-year period is almost up. The inventory of roads and trails on which the RTMP was based was conducted in 2002 and 2003, making the underlying facts used for the RTMP at least 20 years old. Much has changed since the RTMP was issued, and not always for the better. The RTMP reported 50 miles of non-system often illegally created trails. Since 2005 that mileage has increased by about 40% to 70 miles currently, according to Marin Water staff. Furthermore, the RTMP left much of those 50 miles of non-system, illegally created, trails unmitigated, and many seriously eroded trails still exist on the watershed. We acknowledge that Marin Water has made progress in reducing erosion and sedimentation on many trails by installing culverts and other anti-erosion measures. However, the RTPEIR, a document which did not analyze the environmental impact of any recreational activities, cannot be used as an excuse for avoiding comprehensive environmental review on the basis that it improved some roads and trails.

- **Changed circumstances would make reliance on the RTPEIR inappropriate**

Changed circumstances would make reliance on the RTPEIR inappropriate even if it had addressed some of the environmental impacts of RMP projects, which it did not. In the nearly 20 years since the RTPEIR was issued, much has changed on the MW watershed that would affect the environmental analysis of RMP projects. The growth of non-system trails from about 50 to 70 miles during that period is a hugely significant changed circumstance that provides direct evidence of accelerating environmental damage from recreational activities. This environmental damage is overlaid on a watershed that is under increasing stress from climate change, the threat of invasive plants, new plant diseases and increased fire risk. As acknowledged by the RTMP, recreation can be a vector for the introduction and spread of both invasive plants and plant diseases and a source of wildfire ignition. These threats have grown since 2005 and their environmental impacts on the watershed have been exacerbated by extreme drought. The greater threat from invasive plants and disease and increased risk of fire constitutes a changed circumstance. Reliance on a nearly two-decade old PEIR would be inappropriate, even if it had analyzed and sought to mitigate the environmental impacts of projects like those proposed through the RMP, which it did not.

- **New information would make reliance on the RTPEIR inappropriate**

Subsequent to the preparation of the RTMP in 2005, much new information has become available on the environmental impacts of recreational activities, including those that result in the creation of illegal trails. Examples of this new information are summarized in the attached



Appendix. A 2023 study examines the factors influencing the creation and condition of informal trails and considers implications for management. (Spernbauer, et al., *Factors influencing informal trail conditions: Implications for management and research in Urban-Proximate parks and protected areas*, 2023. Appendix Study #1.) A study from 2016 reviews and synthesizes recreation ecology research findings on visitor impacts to wilderness and protected areas. (Marion, et al., *A Review and Synthesis of Recreation Ecology Research Findings on Visitor Impacts to Wilderness and Protected Natural Areas*, 2016. Appendix Study #2.) Another post-2005 study examines the environmental impact of mountain biking. (Marion, et al., *Annex D to SEMBCO Submission MTB Environmental Impact Study Environmental Impacts of Mountain Biking: Science Review and Best Practices*, 2007. Appendix Study #3.) A recent study conducted for the Mid-Peninsula Open Space District found that electric bicycles adversely affect bats by emitting high- and low-pitched sounds above and below the frequency of human hearing.

In addition, the technology of certain recreational activities has changed rapidly since 2005 with the development of e-bikes and the evolution of e-bikes into throttle controlled electric motorcycles and 2-wheeled off-road all-terrain vehicles.

This new information would make reliance on a nearly two-decade old PEIR inappropriate even if it had analyzed recreation impacts.

### **The 2002/2003 Road and Trail Inventory must be updated and expanded.**

In 2002 and 2003, a road and trail inventory was conducted for the RTMP. It identified the erosion and sedimentation potential of Marin Water roads and trails for both system trails and for illegally constructed non-system trails. Non-system trails were rated on a four-point scale from low to very high based on present or expected future environmental damage and need for environmental mitigation. It provides useful information about roads and trails 20 years ago but is no substitute for a current road and trail inventory that is essential for any current recreational planning.

The 2002/2003 inventory provides substantial evidence of some of the environmental impacts of recreation on the watershed even though the 2005 RTMP did not focus on recreational planning. It also provides baseline data on environmental damage from recreational activities as of the date it was prepared. It found over 50 miles of non-system trails. That inventory is now 20 years old. Significant additional non-system trails have been illegally constructed and used by recreational users after that inventory was created. As a result, non-system trails have increased to about 70 miles. This inventory provides baseline data for the condition of roads and trail 20 years ago. However, it provides no information about the current condition of roads and trails on the watershed. It did not consider impacts on biological resources or fire risk. A new road and trail inventory is essential for understanding the environmental impact of recreational activities over the past two decades and to establish baseline data.

This inventory should provide data and maps of the existing natural resource habitats, migration routes, creek corridors, and other sensitive areas with an overlay of the existing trails, both system and non-system.

Although we have anecdotal evidence of degraded trails on the watershed, an objective assessment of the current condition of its roads and trails must be conducted before considering in the RMP whether to authorize new or additional recreational activities on them. A comparison of trail conditions today and 20 years ago also provides important information on the trajectory of environmental damage that can be anticipated from authorizing various recreational activities on existing or newly created trails.

Thank you for considering our comments,

Sincerely,



Barbara Salzman  
President, Marin Audubon Society



David Long  
Co-President, Marin Chapter California Native Plant Society

cc: Shaun Horne, Watershed Manager

## APPENDIX

To support our concerns over the need to protect natural resources from excessive recreation, we bring to your attention four applicable literature and impact reviews regarding recreation and its natural resources implications:

**1. Factors influencing informal trail conditions: Implications for management and research in Urban-Proximate parks and protected areas. 2023.**

S. Spornbauer, Christopher Monz, Ashley D'Antonio, Jordan W. Smith.

### Highlights

- Informal trail networks in urban-proximate parks can cause extensive resource impacts.
- Rapid assessment trail data can be analyzed with predictor effect plots.
- Visitor use should be concentrated considering factors influencing trail conditions.
- Sampling protocols for more precise indicator measures on informal trails are needed.

This paper clearly states that *“The formation of informal trail networks in urban-proximate park and protected areas can lead to extensive resource impacts such as loss of vegetation cover and soil erosion. Use-related, environmental, and managerial factors have been found to influence trail conditions and degradation on formal trails.”* As visitation rises it increases the demands on natural resources, and urban-proximate parks and protected area have not received the research that more wilderness areas enjoy. Selected literature reviews in this paper best documents impact studies that exist on this issue.

### Impacts of recreational trails

“The predominant ecological impacts of recreational trails are loss of vegetation cover, soil compaction, and soil erosion (Ballantyne and Pickering, 2015, Hammitt et al., 2015). While only small differences between the impacts of informal and formal trails have been found, informal trails have been repeatedly found to account for a greater cumulative loss of vegetation due to their greater overall extent relative to formal trails (Ballantyne and Pickering, 2015, Barros and Pickering, 2017, Pickering and Norman, 2017). Vast informal trail networks also contribute to habitat fragmentation, causing landscape level damage and potentially detrimental effects to wildlife (Ballantyne et al., 2014, Barros and Pickering, 2017, Leung et al., 2011, Primack and Terry, 2021). Informal trails often proliferate over time (Hammitt et al., 2015, Leung et al., 2002, Lucas, 2020, Marion and Leung, 2011) and since they often experience less use, they may still be prone to rapid degradation in their early stages (Havlick et al., 2016, Monz et al., 2013). Additional environmental impacts can occur when trails form in ecologically sensitive locations (Leung et al., 2002). The loss of vegetation cover, braided trails, soil compaction, and soil erosion can also have impacts on the visitor experience, as they can scar landscapes and reduce their aesthetic appeal, as well as cause safety and liability concerns (D’Antonio et al., 2012, Marion et al., 2006, Peterson et al., 2018, Rodway-Dyer and Ellis, 2018, Verlič et al., 2015). Despite these complex and wide-ranging impacts, informal trails have received less research attention relative to formal trails (Ballantyne & Pickering, 2015).

Informal trails are difficult to manage and of particular concern to managers in urban and urban-proximate PPAs (D'Antonio et al., 2016, Marion and Leung, 2011, Primack and Terry, 2021). For instance, Reed, Larson, Crooks, and Merenlender (2014) found informal trails make up an average of 45 % of the total trail networks in San Diego County (USA) nature reserves, an area providing outdoor recreation opportunities for over 3 million people.”

Informal trails are not intentionally built, often improperly located in relation to surrounding topography, less used, and often receive no maintenance. “Given informal trails are not built with trail grade and TSA in mind, these trails might have an increased potential for degradation relative to formal trails (Leung et al., 2002, Marion et al., 2006, Rodway-Dyer and Ellis, 2018, Wimpey and Marion, 2011). One comparative study found informal trails are steeper, located in steeper terrain, more closely aligned to the fall-line, and narrower than formal trails (Wimpey & Marion, 2011). Farrell and Marion (2001) found that while the number of informal trails does not differ by amount of use and trail position, the number of informal trails does differ by vegetation type with significantly more informal trails found in grassland environments. Studies investigating the relationship between use level and the proliferation of informal trails report mixed results (D'Antonio et al., 2016, Primack and Terry, 2021).”

**2. Review and Synthesis of Recreation Ecology Research Findings on Visitor Impacts to Wilderness and Protected Natural Areas** [Jeffrey L. Marion, Yu-Fai Leung, Holly Eagleston, Kaitlin Burroughs, \*Journal of Forestry\*, Volume 114, Issue 3, May 2016, Pages 352–362, <https://doi.org/10.5849/jof.15-498>](#)

Classification of human impact to wildlife include: direct mortality, disturbance, habitat alteration, and pollution. Direct mortality includes death of wildlife through vehicle collisions, etc. whereas disturbance results in harassment that can lead to the displacement of wildlife from favorable to less favorable habitat. Habitat alteration and pollution are indirect forms of impact because habitat is altered, with changes to soil, water, flora and fauna, and/or the associated effects of introduced pollutants, flora, or fauna. Indirect impacts can cause an alteration in behavior, distribution, survivorship, and reproductive.

**3. Annex D to SEMBCO Submission MTB Environmental Impact Study**  
**Environmental Impacts of Mountain Biking: Science Review and Best Practices** by Jeff Marion and Jeremy Wimpey 2007

Although this paper’s title identifies Mountain Biking, the selected sections apply to all uses. Among other impacts, this paper identifies that trail use can affect water quality by the introduction of soils, nutrients, and pathogenic organisms and by altering the patterns of surface water drainage. In practice, these impacts are avoidable, and properly designed and maintained trails should not degrade water quality. However undesignated trails are usually poorly sited and/or maintained. They can be eroded by water, with sediments carried off by runoff. Trails close to water resources need special consideration in their design and management to prevent the introduction of suspended sediments into bodies of water. Eroded soil that enters water bodies increase water turbidity and cause sedimentation that can affect aquatic organisms.

Poorly designed trails can also alter hydrologic functions and intercept and divert water from seeps or springs, which serve important ecological functions. In those situations, water can sometimes flow along the tread, leading to muddiness or erosion and, in the case of cupped and eroded treads, the water may flow some distance before it is diverted off the trail, changing the ecology of small wetland or riparian areas.

Trails can degrade or fragment wildlife habitat, and can also alter the activities of nearby animals, causing avoidance behavior in some and food-related attraction behavior in others. While most forms of trail impact are limited to a narrow trail corridor, disturbance of wildlife can extend considerably further into natural landscapes. Even very localized disturbance can harm rare or endangered species.

Loud sounds, off-trail travel, travel in the direction of wildlife, and sudden movements can cause animals flee from the disturbance expending precious energy, which is particularly dangerous for them in winter months when food is scarce. When animals move away from a disturbance, they leave preferred or prime habitat and move, either permanently or temporarily, to secondary habitat that may not meet their needs for food, water, or cover. Visitors and land managers, however, are often unaware of such impacts, because animals often flee before humans are aware of the presence of wildlife.

While the paper found no biological justification for managing mountain biking any differently than hiking, they note that bikers cover more ground in a given time period than hikers and thus can potentially disturb more wildlife per unit time.

Environmental degradation can be substantially avoided or minimized when trail users are restricted to designated formal trails. Many studies have shown that the most damage to plants and soils occur with initial traffic. Many environmental impacts can be avoided, and the rest are substantially minimized when traffic is restricted to a well-designed and managed trail. The best trail alignments avoid the habitats of rare flora and fauna and greatly minimize soil erosion, muddiness, and tread widening by focusing traffic on side-hill trail alignments with limited grades and frequent grade reversals. Even wildlife impacts are greatly minimized when visitors stay on trails; wildlife have a well-documented capacity to habituate to non-threatening recreational uses that occur in consistent places.

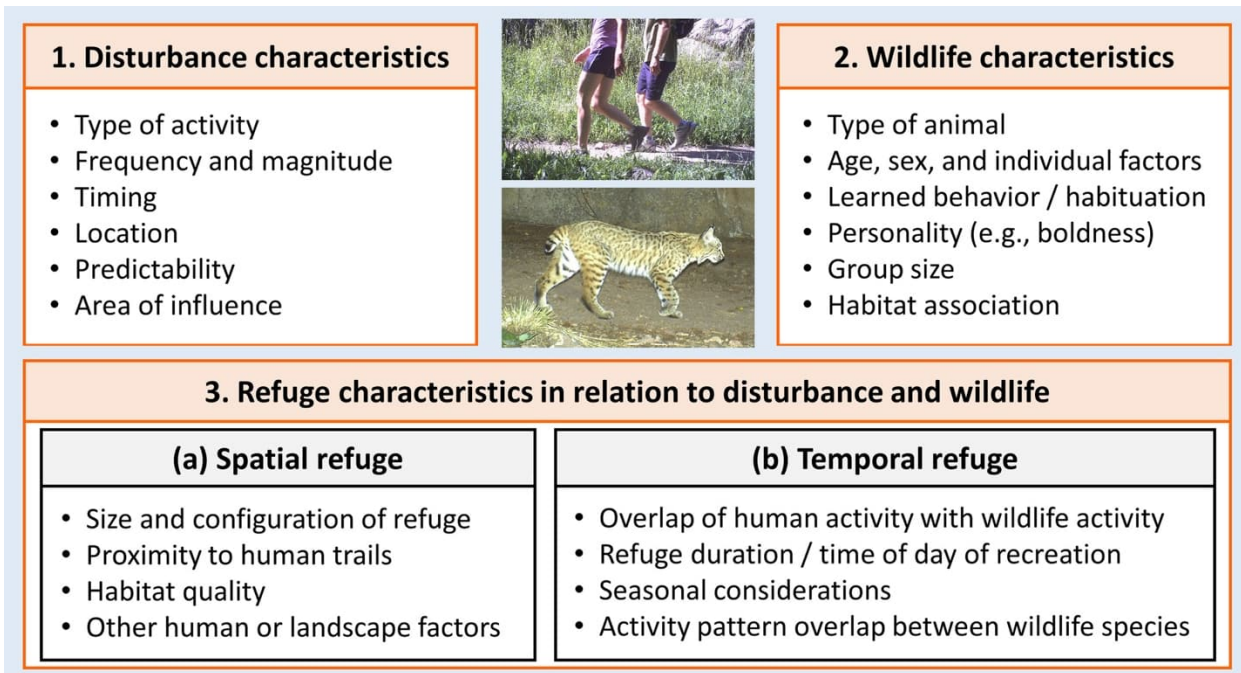
**4. Human activity influences wildlife populations and activity patterns: implications for spatial and temporal refuges, [Jesse S. Lewis](#), [Susan Spaulding](#), [Heather Swanson](#), [William Keeley](#), [Ashley R. Gramza](#), [Sue VandeWoude](#), [Kevin R. Crooks](#).  
First published: 13 May 2021**

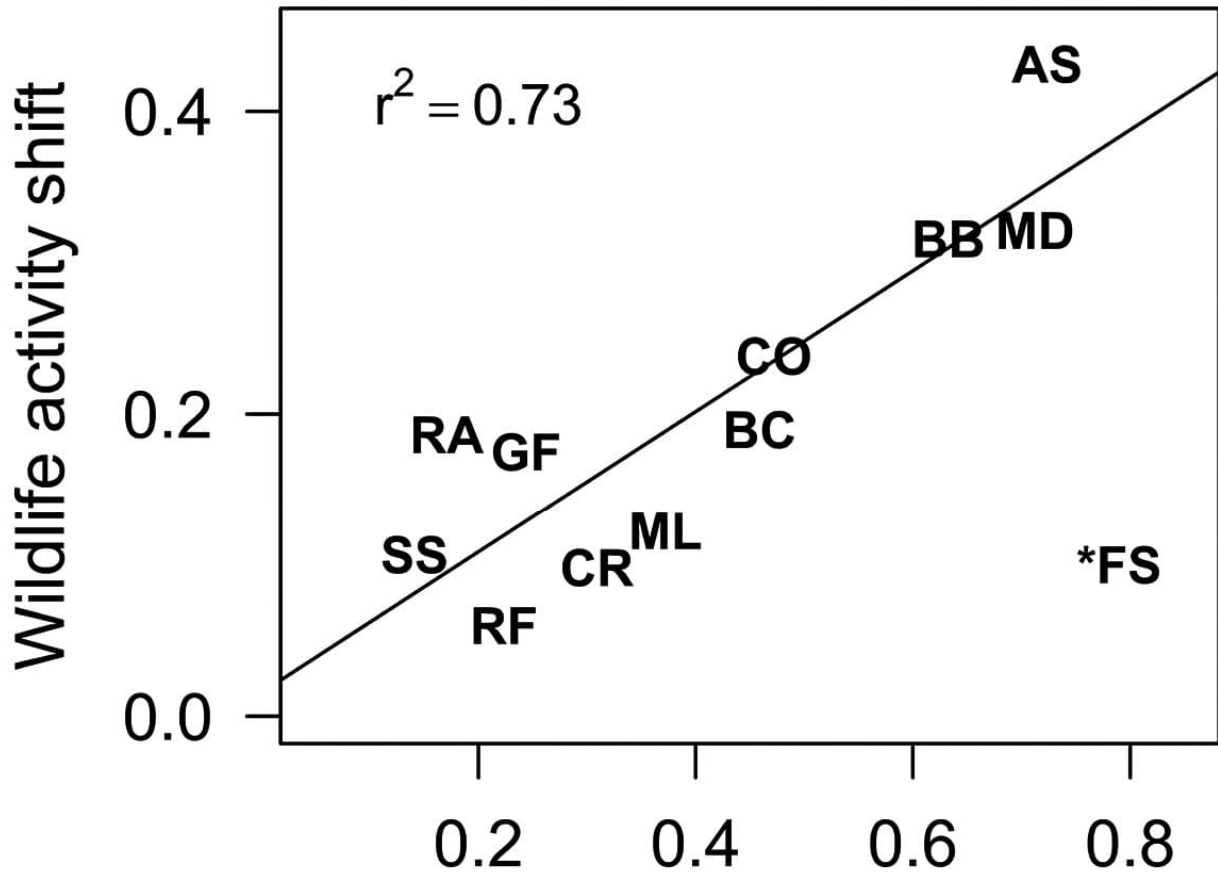
Some species (e.g., fox squirrel, red fox, and striped skunk) did not demonstrate a response to human activity. Other species (e.g., black bear, coyote, and mule deer) altered their activity patterns on recreation trails to be more active at night. Across all wildlife, the degree to which animals altered activity patterns on human trails was related to their natural activity patterns and how active they were during the day when human activity was greatest; species that exhibited

greater overlap in natural activity patterns with humans demonstrated the greatest shifts in their activity, often exhibiting increased nocturnal activity. Further, some species (e.g., Abert's squirrel, bobcat, and mountain lion) exhibited reduced occupancy and/or habitat use in response to human recreation. Managing spatial and temporal refuges for wildlife would likely reduce the impacts of human recreation on animals that use habitat in proximity to trail networks.

At the scale of a recreation area, the effects of human recreation on wildlife can result in animals (1) avoiding or increasing use of an area, (2) reducing or increasing the frequency of use of an area, or (3) changing daily activity pattern to avoid humans (Knight and Gutzwiller [1995](#), George and Crooks [2006](#), Naylor et al. [2009](#), Steven et al. [2011](#), Spaul and Heath [2016](#)). Each wildlife species responds to human disturbance differently depending upon the characteristics of the human activity and animal, with some species being more sensitive to anthropogenic factors than others.

These two figures from this paper summarize some of the complexities:





Wildlife vs human activity overlap

1634328.1



**From:** [Lisa argento martell](#)  
**To:** [Board Comment](#)  
**Subject:** Public Comment/question on agenda item 9A  
**Date:** Monday, April 15, 2024 7:43:23 AM

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Regarding the Watershed Recreational Management Planning Feasibility Study, I called and spoke with a ranger to report bicycle damage done off trail around the Arturo trail. He said he'd put it on the list of repairs and there was also extensive damage on the Ben Stein trail but they have limited resources to do this work. I also told him I had photographs of bicyclists on single track trails clearly marked 'no bicycles'. He said to not ever photograph bicyclists on trails because there have been numerous reports of altercations between bicycles and hikers reported.

My questions are:

1. With the increased safety risk to hikers from bicyclists, how will you provide the extra resources to protect hikers from these altercations?
2. If there is an altercation and someone gets injured, who is the responsible party? Would that be the water district who permitted this study to allow more bicyclists on the trails even with prior knowledge of these altercations?
3. If the responsibility falls on the bicyclist, how would an injured party be able to identify their assailant?
4. Would you consider registering the bicyclists so they can not only be identified but also show proof of safety training prior to going out on the trail?
5. Should the bicyclist need to show proof of liability insurance?

Bicyclists have shown little restraint at breaking the rules of the trails and protecting this precious mountain. I strongly urge you not to reward this behaviour and please stop this feasibility study until further planning is put into place.

Thank you for your time and attention.  
Lisa Argento



**From:** [Linda Novy](#)  
**To:** [Board of Directors](#)  
**Subject:** Recreation Management Plan  
**Date:** Monday, April 15, 2024 7:07:30 PM  
**Attachments:** [Final letter to Marin Water Feb 2024.docx](#)

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Dear Board,

Thank you for the opportunity to comment.

Marin Horse Council wrote to you on February 24, and that letter is attached again. Since then, more information has emerged about the plan, and a report on citations and citizen observation reports from 2023 was requested and provided.

In addition to our prior letter, we are concerned that a visitor class that chronically disobeys the rules is now being granted new opportunities. The thinking, as I understand it, is not to “exclude” anyone from the watershed. The “inclusivity” thinking is based on the hope that appropriate modes of visitation are being screened to avoid negative impacts to the watershed’s flora and fauna, and to protect the safety of other visitors. From what I read about the plan, it still lacks sufficient details about how all visitors to the watershed will be held accountable to follow the rules. Additionally, it is not clear if the positive or negative impacts of the pilot program will be measured watershed-wide or only on the pilot projects. My impression of the Board’s previous comments is that they want to leverage the pilot programs to create a net gain in visitor behavior – in other words, a reduction in citations and citizen observation reports. I am in favor of this and if the bike community, who is being given additional privileges, do not rein in illegal behavior and trail building, then the pilot programs should be shut down.

Regarding citations issued in 2023, there are shockingly few for behavior, but a hefty chunk for parking violations. This demonstrates that either there is no political will to enforce, or there is too much emphasis on parking violations (or it’s easier), or there is an under capacity to enforce. New tools are needed to properly manage and create a culture of compliance on Mt. Tam. Cameras, permits with identifiable numbers on bikes, more rangers, an outreach program to bike organizations and bike shops, and raising the fines for the 1<sup>st</sup> tickets are a few ideas. Most bike riders feel the first ticket of \$150. Is a pay to play fine. The second ticket in the \$750 range bites and would achieve more compliance. Where are these elements in the RMP?

Many horse riders have been scared off most of the trails on Mt. Tam. Only the savviest riders on the most experienced horses dare to ride there now due to speeding bikes and bike riders on horse and hiker trails. This is a cultural loss for the community, and limiting for horse riders.

I encourage you to hold all visitors accountable for their behavior on the Mountain and when it is illegal and reckless, issue tickets and most importantly, if the bike community cannot obey the rules, then restrict, don’t expand, their opportunities. Horse riders rarely have a citation, if any, and make a point of being polite on the trails. We are a minority, but we still have the right to peacefully visit the watershed with our equine companions. Responsible recreation should be defined and quantified with metrics and progressive reduction of opportunities.

Sincerely,

*Linda*

*Linda J. Novy*

*President, Marin Horse Council*

415-497-4783

[https://link.edgepilot.com/s/b3adc728/0\\_IDOBNzLUOvWljDxNSISA?  
u=https://www.marinhorsecouncil.org/](https://link.edgepilot.com/s/b3adc728/0_IDOBNzLUOvWljDxNSISA?u=https://www.marinhorsecouncil.org/)

*Stand up for Horses!*



To: Marin Water Board of Directors  
From: Marin Horse Council  
Date: February 17, 2024  
Re: Watershed Recreation Management Plan

Marin Horse Council (MHC) members and all equestrians treasure Marin's watershed lands and the privilege of visiting them with our horses. In 2012, MHC partnered with Marin Bicycle Coalition and Marin Conservation League to create Trail Partners and its Slow and Say Hello program, which promotes the importance of protecting natural resources on our public open spaces and parklands while, at the same time, fostering visitor safety and well-being. MHC members demonstrates their appreciation for public lands by following rules and regulations as good road and trail "citizens".

This is evidenced by the near zero number of citations issued to watershed equestrians. Horse riders are compliant with public land codes and land manager requests. Marin's trail riding community is composed of pleasure riders, not semi-professional "endurance riders" or teams of three-day event riders. Those elite equestrian athletes train and condition at private facilities and properties. On Marin Water's watershed lands, horse riders ride at slower speeds to enjoy a "pleasure" or "social" ride. Equestrians have had to modify when and where they ride to adjust to the increased numbers of visitors to the watershed and the increased tone and tempo of activities.

Most equestrians, in busier areas of Marin County's parks and preserves, avoid riding horses on the weekend when visitation peaks and bike riders are the predominant "user." Why? Because bike rider speeds and highly congested areas can compromise the safety of equestrians (and hikers). Contrast the speed of bike riders, 15 – 25+ mph to the pace of equestrians: Horses are generally ridden at generally at a walk (4-6 mph) or trot (6 -10mph). \*

Add ebike riders into the mix and you now have faster speeds uphill as well as downhill, and these heavier bikes may be harder to control especially if someone has ADA conditions. Class 1 ebikes, pedal assist, and Class 2 E bikes, throttle assist, can travel both uphill and downhill at speeds at or exceeding 20mph, and Class 3 E bikes at 28mph and greater. Ebikes have morphed into motorbikes, i.e., motorcycles, with many nearly impossible to differentiate from off-road motorcycles.\*\*

Why should this be an issue for the public and land managers? Many reasons, including high speeds regardless of terrain, as well as the powered cycles' ability to range many times farther than muscle-only machines.

The possibility or actual presence of speeding cyclists creates anxiety in watershed visitors seeking a passive and restorative experience. This leads to displacement – visitors avoiding the watershed or visiting only at certain hours and days when visitation is lower. Motorized cycles are more appropriate on streets and roads along with other motor vehicles, not on watershed lands

This new “visitor class” to public lands is a management challenge. Case in point: Electric motorbike riders comprise the largest group of non-compliant visitors. This population of visitors have been riding on Marin Water's lands for years with impunity, which represents a de facto pilot study on visitor compliance. For context, we note that the biggest portion of MW tickets are for parking violations, and the next is for non-legal bike rider behavior. Most observed violations are either not reported or cited. MHC questions how MW can consider accommodating and managing a new visitor class with limited ranger capacity and the demonstrated inability to achieve better behavioral compliance?

In 2023, MHC joined with Marin Conservation League and other organizations and wrote to MW about concerns and suggestions. One suggestion was to subcontract parking control so as to focus existing Rangers on visitor social behavioral issues. We also recommend greater public education,\*\*\* enforcement tools, more rangers, and a transparent and extensive method of electronic incident reporting.

In summary:

Regarding ebikes, MHC supports their use only by ADA-qualified visitors with placards, and by visitors age 65 and older, also permitted, and both classes of these ebike riders displaying an identifiable MW number on their bikes. These riders should be assigned specific fire roads, and no trails. To coordinate with Marin County Parks, the ADA qualification of requiring an Other Power Driven Mobility Device (OPDMD) to travel at 6mph maximum should be considered by MW.

Ideally, all bike riders should have identifiable numbers on their bikes. Sport teams that travel at training speeds versus slower social speeds should not be allowed. MHC does not support suggestions such as alternate day use or uphill only schemes, as bike riders have not demonstrated compliance with existing rules and regulations. All bike speeds of 15 mph are too fast, and should be reduced to be better in sync with the majority of watershed visitors

And, finally, should MW Directors implement a formal pilot study, it should require registration for ADA and senior e bike riders with an identifiable number, and devise a protocol where the public can report their experience in real time from links to incident reports at trail heads. Dedicated rangers need to be added to staff in order to patrol the selected pilot study areas permitted for ebikes.

Sincerely,

*Linda J. Novy*

Linda J. Novy  
President, Marin Horse Council

\*Horse Gaits - Complements of Connie Berto (late). Source of information is from Harry Disston (late), Know about Horses. Mr. Disston was an American Horse Show judge, a former commanding officer with New York's 7<sup>th</sup> Regiment, and a Lt. Col. With the 1<sup>st</sup> Calvary Division of the US Army. The standards listed

below served as a resource to determine the distance in what time a Calvary unit could cover at each gait.

<u>Gaits:</u>	<u>Distance per hour</u>
Walk	4 – 6 mph
Trot	6 – 10 mph
Canter/slow gallop	10- 15 mph
Full out run	16 mph and up

\*\*Motorbikes: link below highlights the cross over between a BMX motorbike and an E bikes. Link below is an ebike that looks and acts like a motocross motorcycle using BMX tires, etc. Some manufacturers try to skirt the law by adding pedals to e-motorcycles.

<https://www.onyxmotorbikes.com/products/lzr-pro-900w>

This “ebike” also referred to as a “motorbike” travels at 60mph.

<https://www.onyxmotorbikes.com/>

\*\*\* A random check at a popular bike shop in Fairfax demonstrated a lack of education about where e bikes are allowed. The sales person I spoke with (2/17/2024) said that the ebikes they sell can be ridden anywhere a regular bike can be ridden. He had no idea of the differences between land agency rules and regs. He also asked if land managers are giving citations. And, I noticed zero information on the counter from any land agency about mountain bike and e bike rules and regulations.