

Allowing Class 1 Pedal Assist (C1PA) Bikes on Designated Mountain Bike Trails

OC Parks Trails Sub-Committee Meeting

October 10, 2024

Executive Summary

- The rise of electrically assisted bikes is accelerating. OC Parks should join others to recognize the 3-class system of e-bikes, and treatment of each class
- Class 1 Pedal Assist (C1PA) bikes should be treated as bicycles and allowed on same designated trails as mountain bikes
- Class 2 and 3 should not be permitted because they either (i) do not require pedaling and/or (ii) have higher speeds
- Amending existing ordinance 2-5-29 (n) can permit use of C1PA bicycles in OC Parks on authorized bike trails (*i.e.*, unpaved roads and natural trails) by amendment
- Options are presented to change the ordinance to allow C1PA to be treated as bikes, there may be other ways as well

Rule Changes Allowing C1PA on Bike Trails

1. Recognize C1PA are bicycles NOT motor vehicles in OC Parks (Cal. Veh. Code §231*)
2. Recognize classifications of electric bicycles in OC Parks policy (Cal. Veh. Code §312.5**)
3. Allow use of C1PA on unpaved roads and natural trails where bicycles are permitted

* Amended by Stats. 2021, Ch. 311, Sec. 1. (SB 814) Effective January 1, 2022

** Added by Stats. 2015, Ch. 568, Sec. 1. (AB 1096) Effective January 1, 2016

Options for permitting C1PA bicycles in OC Parks

- **Option 1 – Update Existing Ordinance:** update the existing OC Parks ordinance (OC Ordinance Vehicle Regulation Sec. 2-5-29(n)) to authorize use of C1PA bikes on OC Parks unpaved roads and natural trails where bikes are permitted; or
- **Option 2 – Adopt New Ordinance:** adopt a new ordinance for OC Parks that recognizes electric bike classifications and authorizes C1PA bikes on County park unpaved roads and natural trails where bikes are permitted (building on classifications recently adopted by the Board of Supervisors based on the recommendation from the OC Public Works Commission for paved roads)
- There may be other ways as well

Option 1: Update Ordinance

- **OC Municipal Ordinance (Vehicle Regulation Sec. 2-5-29 (n))**
- Title 2: Public Facilities
- Division 5: Parks, Beaches and Recreational Areas
- *Motorized Wheeled Conveyance Prohibited.* No person shall operate or drive any **electric** or combustible motorized skateboard, scooter, dirt bike, mini bike, mini motor bike, mini motorcycle, go-kart, go-ped, mo-ped, all-terrain-vehicle, quad runner, dune buggy or any similar electric or combustible motorized wheeled conveyance in any park, beach or recreational area, with the exception of Class 1 and Class 2 electric bicycles, as defined by the California Vehicle Code, on those regional paved, off-road bikeways and unpaved roads and natural trails , unless otherwise designated for such use by the Director of OC Parks, with the approval of the Board of Supervisors.

Option 2: Create New Ordinance

- **Mirror** OC Public Works new ordinance adopted by the Supervisors

New OC Public Works: Code Sec. 6-4-102: Definitions

(c) *Bicycle*: As defined by Vehicle Code 231, as may be amended or superseded, a bicycle is a device upon which a person may ride, propelled by human power through a belt, chain, or gears, and having one or more wheels; for the purposes of this ordinance, an electric bicycle, or e-bike, shall be considered a bicycle.

...

(k) *Electric Bicycle*: An electric bicycle (also known as e-bike) is a bicycle equipped with fully operable pedals and an electric motor of less than 750 watts. Electric bicycle does not include motorized bicycles or mopeds as defined in California Vehicle Code 406(a).

- i. A “class 1 electric bicycle,” or “low speed pedal-assisted electric bicycle,” is a bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour.

- **Add** a provision stating that: “A Class 1 Pedal Assist bicycle may be ridden in places where bicycles are allowed, including but not limited to, streets, highways, roads, bicycle lanes, and bicycle or unpaved roads or natural trails.”

Appendix

Public Comment

Alignment with NCCP/HCP

- Committed to Reserve protection under the Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) and other easements covering Crystal Cove State Park, Laguna Wilderness Park, Aliso and Wood Canyon Regional Park, and other OC Parks
- Key policy in NCCP/HCP
 - determination that there is **not an inherent conflict between the recreation uses permitted as part of the NCCP/HCP...and protection of sensitive biotic resources** (NCCP/HCP at p. II-343)
- Permitted uses within the Reserve
 - **“mountain biking ...on designated trails”** (NCCP/HCP, p. II-294)
- Prohibited uses within the Reserve
 - **“motorized recreation vehicles”** (NCCP/HCP, p. II-350)

Alignment with California State Parks Off Highway Vehicle Policies

“OHMVR Division has received numerous inquiries regarding electric off-highway motorcycles sold from manufacturers including Sur-Ron, Talaria, Segway, and E Ride Pro. “

“These electric off-highway motorcycles are often inaccurately referred to as electrical bicycles, commonly called “E-Bikes” and have often been sold and advertised by retailers as such. These vehicles are off-highway motorcycles and meet the California vehicle code definition of CVC§ 400 and CVC §436. These off-highway motorcycles do NOT meet the definition of Electric Bicycle (CVC §312.5) or Motorized Bicycle or MOPED (CVC §406).”

Classification Guide from CA State Parks OHV

CLASSIFICATION CHART							
	Bicycle	Class 1 Electric Bicycle	Class 2 Electric Bicycle	Class 3 Electric Bicycle	Moped Motorized Bicycle	Motorized Scooter	Electric Motorcycle (Off-Highway)
Equipped with Pedals	Yes	Yes	Yes	Yes	No	No	No
Maximum Assisted Motor Speed	N/A No Motor	20 MPH	20 MPH	28 MPH	30 MPH	15 MPH	None
Allowed to Utilize Bike Lane	Yes	Yes	Yes	Yes	Authorized by local ordinance	Yes	No
Helmet Requirements	Under 18	Under 18	Under 18	Under 18	DOT Approved Helmet Required	Under 18	No
Min. Operating Age	None	None	None	16	16	None	None
Driver's License Required	No	No	No	No	Yes	Yes	None
DMV Issued Plate or Device	No	No	No	No	Special Issued License Plate	No	CA OHV Sticker
Electric Motor Power Limit	N/A No Motor	750 Watts	750 Watts	750 Watts	4 Gross Brake Horsepower. (3000W)	No Limit	No Limit
Vehicle Code Definition	CVC §231	CVC §312.5 (a)(1)	CVC §312.5 (a)(2)	CVC §312.5 (a)(3)	CVC §406(a)	CVC §407.5	CVC §436
Applicable Laws	CVC §21212(a) Helmet Requirements	CVC §21212(a) Helmet Requirements	CVC §21212(a) Helmet Requirements	CVC §21213 Age + Helmet Req.	CVC §12500(b) License Required	CVC §21235 Operation Rules CVC §22411 Scooter Speed Laws	CVC §38020 Identification CVC §38301(a) Illegal Operation Public Lands

Pedals Only
Throttles/Higher Speed
Sur-Ron+

Regulations Approving Class 1 Pedal Assist Bicycles in other California Jurisdictions

- **East Bay Regional Park District** - “Park District Board of Directors voted to allow Class 1 e-Bikes on all trails where regular bikes are allowed.” (<https://www.ebparks.org/about-us/whats-new/news/e-bike-update>)
- **San Diego County** - “Class 1 and 2 e-bikes are currently permitted on all County paved areas and trails where non-electric bikes are permitted, unless specifically restricted by DPR for safety and maintenance concerns.” (<https://www.sdparks.org/content/dam/sdparks/en/pdf/BrochuresMiscellaneous/E%20Bike%20Fact%20Sheet%20from%20DPR.pdf>)
- **Sonoma County** - “Class 1 Electric Bicycles (E-Bikes) are allowed in Regional Parks wherever conventional bicycles are allowed unless otherwise posted. E-Bike riders must adhere to the same trail rules as conventional bicycle riders. Class 1 E-bikes are pedal-assist only, with no throttle, and have a maximum assist of 20 mph.” (<https://parks.sonomacounty.ca.gov/play/biking>)

Studies on C1PA bikes: Positive for recreation and same impact as mountain bikes

- **European and U.S. Study on bike safety**
 - When comparing e-bikes with pedal bikes, "all differences between e-bikes and conventional bicycles disappeared; e-bikes and conventional bicycles have the same crash risk." (<https://ipmba.org/images/uploads/EbikeSafety-VFinal.pdf>)
- **Deschutes National Forest Are the Bikes Faster?** "Typically, the power is used to extend the ride another hour or two or make it easier to climb -- not just to go faster." ([\">https://www.cotamtb.com/ebikes.html#:~:text=The%20Tahoe%20National%20Forest%2C%20which,considering%20class%201%20e%2Dbikes\)\](https://www.cotamtb.com/ebikes.html#:~:text=The%20Tahoe%20National%20Forest%2C%20which,considering%20class%201%20e%2Dbikes))
- **Lake Tahoe area trails and e-bike use**
 - Impact on environment: "After considering the environmental effects described in the EA, I have determined these actions will not have a significant effect on the quality of the human environment." (<https://www.tahoedonner.com/wp-content/uploads/2021/05/Decision-Notice-East-Zone-Connectivity-Restoration-Project.pdf>)
- **Jakes Rocks trails District Ranger Rich Hatfield said**, "A recurrent theme in many of the comments that we received was that class 1 e-bike use would allow more people to start mountain biking or continue enjoying this outdoor pursuit as they age or their physical condition changes. As a public land manager, I want to encourage everyone to get outside, exercise, and enjoy our public lands. This project allows me to support that objective." (<https://pawilds.com/class-1-e-bikes-allowed-trails-at-jakes-rocks/>)
- **NIH Study showing relative health comparisons of Class 1 eMTB's with pedal mountain bikes** "Participants agreed that their heart rate is considerably lower while riding an eMTB as compared with a conventional mountain bike and eMTB use allows riders greater and deeper access to backcountry dirt trails." (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6711045/>)