

**MARIN MUNICIPAL WATER DISTRICT
E-BIKES COMMUNITY ADVISORY COMMITTEE MEETING MINUTES**

Minutes of the E-Bikes Community Advisory Committee Meeting held on Tuesday, January 14, 2020 at 220 Nellen Ave., Corte Madera, California.

Members present: Bill Albright, Debbie Rafael, Gail MacMillan, Jonathan Frieman, Nona Dennis, Peter Whittlesey, Robert Eichstaedt, Robert Mittelstaedt, and Sierra Salin

Members absent: Ellie Cohen

This meeting was noticed as a special meeting to allow three or more Board members to attend. In attendance were Board members: Larry Bragman, Cynthia Koehler, and Armando Quintero; and staff members: Shaun Horne, Watershed Resources Manager, Crystal Yezman, Facilities and Watershed Division Manager, and Brett Pedisich, Park Ranger.

Welcome and Introductions

Sam Magill, Senior Facilitator at the Consensus and Collaboration Program at Sacramento State University, called the meeting to order at 6:01 p.m. Mr. Magill welcomed everyone to the meeting and called upon the E-Bikes Community Advisory Committee's (CAC) members to do a brief self-introduction.

Review of Previous Meetings

Mr. Magill went over the current agenda and the purpose of the current meeting, which was to hear a presentation on battery safety, and for the committee to discuss their findings and opinions of e-bikes amongst each other. He advised that the committee's recommendations will be presented during the February meeting. Topics from previous meetings included: e-bikes in other jurisdictions, current e-bike technology, Mt. Tam Roads and Trails Management Plan, and a Watershed User Study. A brief question and answer period with the committee followed.

Presentation: Risk Assessment of E-Bikes Lithium Batteries

Mr. Magill introduced Devinder Grewal, PhD, P.E., of Fathom Engineering. Mr. Grewal provided the committee with a brief summary of his background and areas of expertise. He presented a PowerPoint presentation that gave an overview of lithium battery fire statistics. He said that there is no epidemiological data available on e-bike fire risk, but explained the similarities between lithium-ion batteries that are used for vaping and e-bikes. Mr. Grewal said that the most common time for fire is during charging and discharging.

Mr. Grewal's presentation covered how Li-ion cell chemistry affects the risk of fire and explosion and explained the difference between a cell vs. a battery. He explained that because of the vulnerability of lithium cell design, self-heating of the cell during charge or discharge is the leading cause of fires, and that lithium can burn without oxygen. He showed some of the different defects in cells and explained that they are the other main cause of fires.

Mr. Grewal's presentation provided an overview of how the manufacturing process of batteries and e-bikes, and the chain-of-commerce for both products affect the risk of Li-ion battery fire. It also covered the common specific risk factors of battery fires that are potentially under the control of the end-user of

the bike and battery, and what the AHJ (authority having jurisdiction) can do to affect battery fire risk. A question and answer period with the committee and Dr. Grewal followed.

Discussion: Current Opinions on E-bikes

Mr. Magill asked the committee, “Based on everything you’ve heard in the process so far, what are your current opinions on e-bikes being allowed on natural surface fire roads on the watershed? And why?” Park Ranger Brett Pedisich was asked a couple questions. A preliminary comment period followed among the committee members and it was discussed that a compilation of written responses would be gathered and the full range of opinions would be formally presented at the next meeting.

Overview: Process for Recommendation Development

Mr. Magill informed the committee that they would be receiving an email with a one-page worksheet to fill out and send to him and Mr. Horne by January 28.

Public Comment

There were five public comments by John Slivka, of Electronic Tech of Sausalito, Laura Chariton, of Watershed Alliance of Marin, Fairfax resident and President of Mike’s Bikes Matt Adams, Sausalito resident Suzanne Gooch, and San Rafael resident and Marin Conservation League member Larry Minikes.

ADJOURNMENT

There being no further business, the meeting of January 14, 2020 was adjourned at 8:19 p.m.