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**TOWN OF
BROOKLINE, NEW HAMPSHIRE**
Conservation Commission

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BROOKLINE, NH 03033-0360

<http://www.brookline.nh.us>

**Minutes
Tuesday, April 13, 2021
Conservation Commission
Meeting Start at or about 7:00 PM**

Present: Francis (Buddy) Dougherty, Chairman
Jay Chrystal, Vice Chairman (7:23pm)
Tom Rogers, Member
Jerry Jaworski, Member
Roy Wallen, Alternate
Sean McNair, Alternate
Dana Ketchen, Selectboard Representative
Drew Kellner, Alternate Selectboard Representative

Absent: Eric DiVirgilio, Alternate

This meeting was held Virtually via Zoom

Buddy called the meeting to order at 7pm he stated they are meeting electronically and remotely under the governor's Executive Order 2020-04 and Executive Orders #12 and #23. In following with these orders, he asked each commission member to state where they are, why they are there and who, if anyone, is in the room with them. All members responded.

Buddy asked Roy to vote for Jay until he arrives. **Roy** agreed.

At the Last Selectboard Meeting they appointed Dana Ketchen to the Conservation Commission as the Selectboard Representative and Drew Kellner as the Selectboard Alternate to the Conservation Commission.

Buddy said Maria Bechis has expressed interested in becoming an alternate member of the Conservation Commission. Maria introduced herself to the Board. **Buddy** asked her to attend at least three meetings.

Camp Flannery Pit Toilet, Laurie Stevens (Tom)

Tom said Laurie Stevens has offered to help figure out where the best place is to put a pit toilet. **Laurie** said she lives at 41 Russell Hill Road she is a Licensed professional Environmental Civil Engineer. There are all kind of toilets you can put in at this location. You could need to figure out what kind of maintenance and what the cost will be. How often it will be used. **Laurie** said this could potentially be an Eagle Scout Project once they figure out what they will need.

Palmer – Bartell & Cider Mill Parking (Tom)

Tom said they are getting a lot of traffic at the Bartell and the Cider Mill Parking area. they should add a few more parking spots at these two locations. **Roy** said Hood Road is an overflow parking spot for the Bartell Palmer Trail. **Tom** said yes, it is but not everyone is comfortable with walking across Route 13. From a Towns stand point are we comfortable sending people across Route 13. **Roy** suggested a sign that states there is overflow parking across the street. **Jay** said they could add that there is addition parking off Hood Road and in Milford off Melendy Road. **Tom** will put something to the Facebook page also. **Tom** said they will still need to add a couple extra parking spaces at Cider Mill Parking.

Farwell, Clarence, 2 Lot Subdivision, Off Russell Hill Road comments for PB

After Review of the Plan the Board agreed they had no issues with the plan, but they are concerned with adequate water supply in that area for 2 more homes. .

Spring Clean-up 2021

This year's Spring Clean Up week is scheduled for April 24th thru May 2nd. Blue bags can be picked up at the town offices and at the transfer station. We will need volunteers to pick up bags also.

Dana asked if there was anything that can be done to reduce the amount of trash on the roadside. **Drew** said this is not a unique problem to Brookline and they have not found a fix for this **Jay** said New Hampshire has a litter law but you need to catch them doing it. **Dana** said maybe the Selectboard could discuss this with the Police Department.

Nissitissit River Park - Parking Area Paving (Drew)

Drew suggested due to the weeds they should pave the parking lot area only. The Board agreed. **Drew** said this could be funded by the larger project.

CO-Marketing PTO Race (Drew)

Drew said this will be more like the Turkey Trot that the BCC hosts. The PTO is looking for us to help promote this race and they will help with the Turkey Trott. The Board agreed. **Tom** said he will post a notice on Facebook.

E Bike Presentation

Jerry Presented the e-bike presentation. See attached.

Adopt the Code of Ethics (As adopted by the Selectboard on 4/5/2021)

Buddy made a motion to adopt the Code of Ethic as adopted by the Selectboard at the April 5th 2021 Selectboard meeting. Jay seconded. Roll call Buddy, Jay, Tom, Jerry, Dana, Sean and Roy all votes yes.

Appoint / Reappoint Chairman and Vice Chairman for the ensuing year

Jay made a motion to nominate Buddy Dougherty as the Chairman of the Conservation Commission. Tom seconded. Roll Call vote Buddy, Jay, Tom, Jerry, Sean, and Roy all voted yes.

Buddy made a motion to nominate Jay Chrystal as the Vice Chairman of the Conservation Commission. Tom seconded. Roll Call vote Buddy, Jay, Tom, Jerry, Sean, and Roy all voted yes.

Trash Pick

Drew said he has spoken to MD's Trash Removal about putting trash barrels behind the Sunoco Station and the Bohanon Bridge. They said they could add a 96 gallon barrel at each oof these locations. Drew suggested they start with a once a month pick up and see how it goes. Dana made a motion to approval two 96 gallons refuse containers one at the Bohanon Bridge and one behind the Sunoco Station to be emptied once a month. Jay seconded. Roll Call vote Buddy, Jay, Tom, Jerry, Sean, and Roy all voted yes.

Non-Public

Jay made a motion to go into non-public session under RSA 91-A:3, II (d) for purpose of land acquisition and immediately adjourn the meeting. Seconded by Jerry. Roll call vote Buddy, Jay, Tom, Jerry, Sean, and Roy all voted yes.

Jay made a motion to come out of non-public session and seal the minutes. Seconded by Jerry. Roll call vote Buddy, Jay, Tom, Jerry, Sean, and Roy all voted yes.

Adjourn

Jay made a motion to adjourn at 8:30pm. Buddy seconded. Roll call vote Buddy, Jay, Tom, Jerry, Sean, and Roy all voted yes.

Francis (Buddy) Dougherty, Chairman _____

Jay Chrystal, Vice-Chairman, _____

Tom Rogers, Member _____

Jerry Jaworski, Member _____

Dana Ketchen, Selectboard Representative, _____

Minutes prepared by Kristen Austin
Next Conservation Commission meeting will be held on May 11, 2021

E-Bikes

Jerry Jaworski
Brookline Conservation Commission
2021-04-13

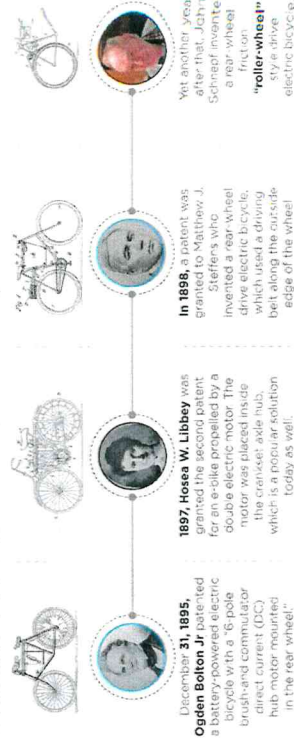


Definition and History

- An e-bike is a bicycle with a motor and a battery
- E-bikes have been around since 1895
- The Electric Bicycle Market is Growing Rapidly
 - Urban e-bikes dominate the market
 - The largest markets are Asia-Pacific (dominated by China) and Europe
 - e-bike sales are estimated to reach 40 million units worldwide in 2023 with 300 million total number of e-bikes in circulation

E-BICYCLE PATENTS

The concept of an e-bike has been known for more than 120 years



ebicycles.com/ebike-facts-statistics

MODERN E-BIKES

In 1989, Yamaha built one of the first prototypes of electric bicycles and later also invented the pedal-assist system in 1993.

The worldwide production of e-bikes grew by **35%** between 1993 and 2004.

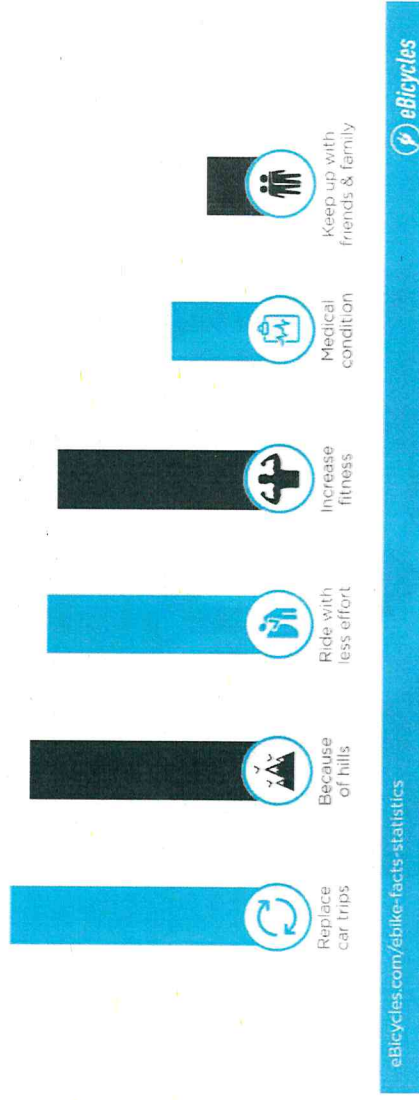
In 1997, Lee Iacocca founded EV Global Motors and produced E-Bike SX, which was one of the first electric bicycles to become widely popular in the US.

ebicycles.com/ebike-facts-statistics

Reasons for Riding an e-bike

Sec of Interior, Order 3376, 8/29/2019

- Bicycling is an excellent way for visitors to Federal lands to experience America's rich natural heritage.
- By reducing the physical demand of operating a bicycle, e-bikes have expanded access to recreational opportunities, particularly to those with limitations stemming from age, illness, disability or fitness, especially in more challenging environments, such as high altitudes or hilly terrain.



Examples of E-Bikes



City/Recreational

- 250 Watt crank drive motor
- 400 Watt-Hour Lithium-ion battery
- Class 1 - 20 MPH max assisted speed
- Weighs 51 lbs
- \$2650



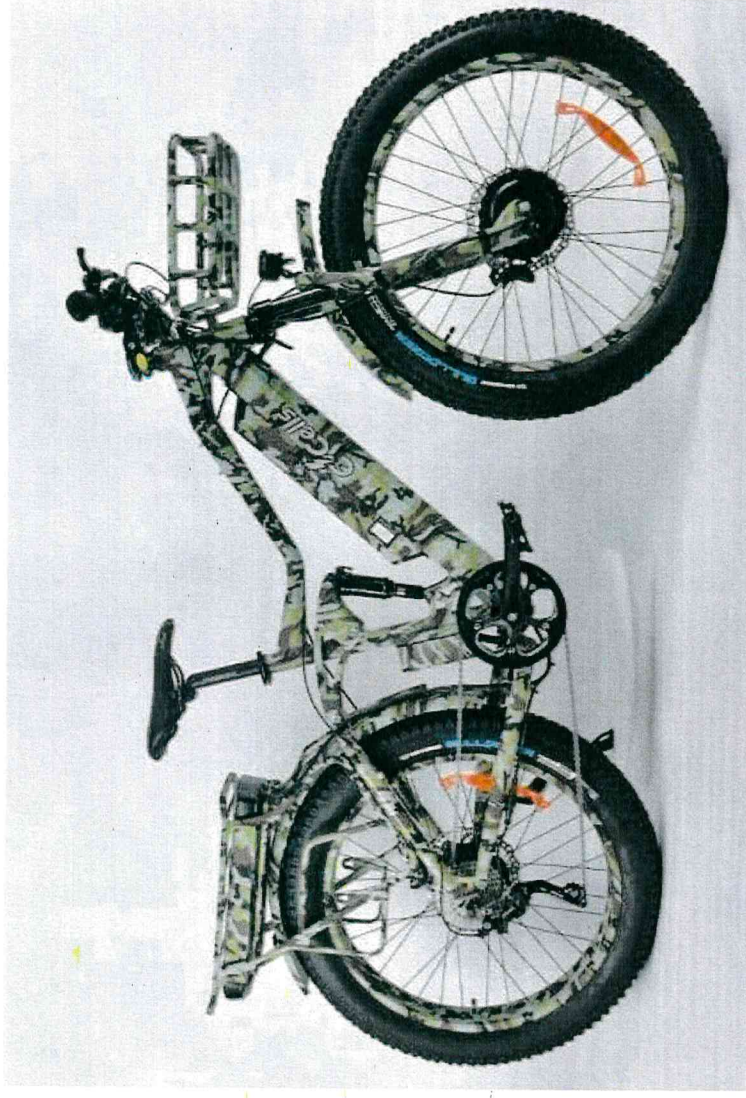
Cargo/Hauler

- 750 Watt geared rear hub motor
- 672 Watt-Hour Lithium-ion battery
- Class 2 - 20 MPH max throttle or pedal assisted speed
- 350 lb payload capacity
- \$1899



Hunting

- Dual 750 Watt geared hub motors
- 2 Lithium-Ion batteries providing a total of 1638 Watt-Hours
- Out-of-Class – pedal and throttle assist
- Weighs 95 lbs
- \$4495



Gravel/Road

- 250 Watt crank drive motor
- 250 Watt-Hour Lithium-ion battery
- Class 3 - 28 MPH max pedal assisted speed
- Weighs 38 lbs
- \$7500



Mountain (eMTB)

- 565 Watt crank drive motor
- 750 Watt-Hour Lithium-ion battery
- Class 1 - 20 MPH max pedal assisted speed
- Weighs 42 lbs
- \$7500

This is the type of e-bike we're most likely to see on our trails



Federal Laws Governing e-bikes

Dec 4, 2002

- Consumer Product Safety Act (15 USC 2085 SEC. 38)
 - ‘low-speed electric bicycle’ means a two- or three-wheeled vehicle with fully operable pedals and an electric motor of less than 750 watts (1 h.p.), whose maximum speed on a paved level surface, when powered solely by such a motor while ridden by an operator who weighs 170 pounds, is less than 20 mph.
- Motor Vehicle Safety Standards (49 USC 30102 SEC. 2)
 - “a low-speed electric bicycle shall not be considered a motor vehicle”

Secretary of Interior Order # 3376

August 29, 2019

- For the purpose of this Order, "e-bikes" shall mean "low-speed electric bicycle" as defined by 15 U.S.C. § 2085 and falling within one of the following classifications:
 - "Class 1 electric bicycle" shall mean an electric bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour
 - "Class 2 electric bicycle" shall mean an electric bicycle equipped with a motor that may be used exclusively to propel the bicycle, and that is not capable of providing assistance when the bicycle reaches the speed of 20 miles per hour
 - "Class 3 electric bicycle" shall mean an electric bicycle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 28 miles per hour.
- E-bikes shall be allowed where other types of bicycles are allowed
- E-bikes shall not be allowed where other types of bicycles are prohibited
- Within 30 days, Directors of FWS, NPS, BLM and BOR to modify existing regulations to be consistent with the Order and exempt e-bikes from falling under the classifications of off-road vehicle, motor vehicle and motorized vehicle.

NH House Bill 148 – An Act Relative to Electric Bicycles

Effective Date Aug 18, 2019

- 259:27-a Electric Bicycle
 - "Electric bicycle" shall mean a pedaled vehicle equipped with an electric motor of less than 750 watts that falls within one of the following 3 classes:
 - "Class 1 electric bicycle" shall mean a pedaled vehicle equipped with a motor that provides assistance only when the rider is pedaling, and that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour.
 - "Class 2 electric bicycle" shall mean a pedaled vehicle equipped with a motor that may be used exclusively to propel the bicycle and that is not capable of providing assistance when the bicycle reaches the speed of 20 miles per hour.
 - "Class 3 electric bicycle" shall mean a pedaled vehicle equipped with a motor that provides assistance only when the rider is pedaling and that ceases to provide assistance when the bicycle reaches the speed of 28 miles per hour.
- 93:1
 - OHRVs* shall not include electric bicycles.
 - OHRVs shall include any pedaled vehicle equipped with a motor that is not included in the definition of electric bicycle.
- 259:6
 - The term "bicycle" shall include "electric bicycle".

* OHRV – Off-Highway Recreational Vehicle

NH House Bill

148

(continued)

- 93:11 (VII) An electric bicycle may be operated wherever a bicycle may be operated, subject to the following limitations:
 - A class 1 or class 2 electric bicycle may be ridden on bicycle paths or on multi-use paths where bicycles are permitted. However, a city, town, or state agency having jurisdiction over a bicycle or multi-use path may prohibit the operation of a class 1 or class 2 electric bicycle on that path.
 - A class 3 electric bicycle shall not be ridden on a bicycle or multi-use path unless it is within or adjacent to a highway or roadway, or unless a city, town, or state agency having jurisdiction over the path permits the operation of class 3 electric bicycles on that path.
- 93-11 (VIII) The provisions of paragraph VII shall not apply to a trail designated as non-motorized if such trail has a natural surface tread made by clearing and grading the native soil with no added surfacing materials. A city, town, or state agency with jurisdiction over such a trail may regulate the use of electric bicycles on such a trail.

Summary of House Bill 148

- HB 148 does not concern private property
- An e-bike is a bicycle
- A city, town or state agency with jurisdiction can explicitly regulate e-bike use
- By default, Class 1 and 2 e-bikes are permitted on all multi-use trails that allow bicycles with one exception
 - If the trail is posted as non-motorized and it has a natural surface, then e-bikes are prohibited unless specifically allowed
- By default, Class 3 e-bikes are prohibited on all multi-use trails unless they are adjacent to a highway or road

Summary of State Electric Bicycle Laws

from the National
Conference of State
Legislatures

- 43 states define e-bikes
- 26 states including New Hampshire, Connecticut and Maine use the 3-tiered classification system
- Some states include electric bicycles within the existing definition of a bicycle so there is no distinction when it comes to operation on trails
- Vermont specifies that motor-assisted bicycles are governed as bicycles so there is no distinction when it comes to operation on trails
- Some states specifically allow e-bikes on bike paths, greenways, etc. but allow local exceptions
- Interestingly, Massachusetts still considers e-bikes to be motorized bicycles. E-bike riders must carry a driver's license and e-bikes are prohibited from all bike paths, as well as all sidewalks, regardless of local context.

Where can e-bikes be Ridden in NH

- **Acadia National Park**
 - Class 1 e-bikes are now allowed where traditional bicycles are allowed – e.g. on the Carriage Roads
 - Class 1, 2 and 3 e-bikes are allowed where motor vehicles are allowed
- **White Mountains National Forest**
 - I called the WMNF Headquarters and asked. The ranger said he'd check and call me back. He didn't. Google found similar stories.
 - According to NEMBA: The Forest Service allows eMTBs on designated snowmobile trails in the Saco Ranger District when such trails are open to snowmobiles.
Comment: So they're only allowed in the winter?
- **New Hampshire State Parks**
 - According to N.H. Code Admin. R. Res 7301.18 (d):

The recreational use of electric and power-assisted bicycles on natural surface trails shall be managed within the same rules and regulations as motorized vehicles.

What About Conservation Land in Neighboring Towns?

- Milford, Hollis and Amherst Conservation Commissions have not yet considered e-bike use
- Merrimack CC e-bike discussion at 9/21/2020 meeting
 - Concerns expressed about increased speed (esp. riding uphill), difficulty enforcing a policy that allowed just Class 1 e-bikes, noise from the motor, older people or people who had mobility issues being able to control a heavy e-bike on a narrow rocky trail, potential conflicts between hikers and e-bikes going fast
 - Decided not to make a decision and didn't establish a timetable for making one.
- Beaver Brook has not yet considered e-bike use
 - I have seen e-bikes on Tupelo Trail
- Nashua does not mention e-bikes on their website
 - NRPC is not aware of any e-bike policy
 - Trails for Mine Falls and Yudicky Farm are marked as "no e-bikes" in Trailforks

Organizations Involved in e-bike Policy

- **PeopleforBikes (www.peopleforbikes.org)**
 - A non-profit to advance pro-bike business policies to support a thriving bike industry and the jobs it produces.
 - Created the 3-tier classification
- **Bike-Walk Alliance New Hampshire (www.bwanh.org)**
 - A non-profit that advocates for policies, laws and conditions that increase safety and accessibility for bicyclists and pedestrians.
 - Helped craft the e-bike changes to the NH RSAs
- **Rails-to-Trails Conservancy (www.railstotrail.org)**
 - RTC advocates for trail-friendly policies and funding at the federal and state levels—in the courts, in Congress and throughout the country. Through our trail development work, we have helped hundreds of communities in America plan, build and maintain trails in urban, suburban and rural areas.
- **IMBA – International Mountain Biking Association (www.imba.com)**
 - “The International Mountain Bicycling Association (IMBA) is the worldwide leader in mountain bike advocacy, and the only organization in the U.S. focused entirely on trails and access, for all types of mountain bikers in all parts of the country.”
- **NEMBA – New England Mountain Biking Association (www.nemba.org)**
 - “We are a recreational trails advocacy organization with 29 chapters throughout New England and over 5,000 members. Our mission is to promote the best that mountain biking has to offer, steward the trail systems where we recreate and preserve open space. We are an educational 501 (c) 3 non-profit.”

What are Their Positions?

- PeopleforBikes and Bike-Walk Alliance of NH

In favor of opening all trails to Class 1 and 2 e-bikes

- Rails-to-Trails Conservancy

RTC is supportive of e-bikes because they may reduce the use of gas-powered transportation, can act as a gateway to biking for sedentary or unconfident users, and enable older riders and persons with disabilities, health issues or injuries to bike for recreation.

- IMBA

We support trail access for Class 1 eMTBs and support shared use on trails as long as access is not lost or impeded for traditional mountain bikes. IMBA recommends Class 1 eMTBs be managed independently from traditional mountain bikes and we encourage land managers to develop separate regulations.

- NEMBA

NEMBA believes that class 1 eMTBs differ significantly from other motorized vehicles and offer a recreational experience similar to traditional mountain biking. While the experience is similar, NEMBA remains concerned about land managers' perceptions of user conflict and environmental impact. NEMBA believes class 1 eMTBs are a unique class of trail use, closely related to traditional mountain biking but separate and distinct.

Translation: NEMBA is concerned that hard-won access to trails for traditional MTBs will be adversely affected by trail issues caused specifically by eMTBs.

What Issues are Posed by eMTBs?

- Safety – riders going too fast
 - From “NEMBA Guidance to Land Managers Regarding the Electric Power-Assist Bikes on Trails”, Jan 1, 2021
 - Class 1 e-bikes can go 20 MPH -- even up hills. This is significantly faster than all other non-motorized trail users and will create significant user conflict and safety issues, especially since the motor is silent.
- Comment: I could not find any study that supported these conclusions. MTB riders can go 20+ MPH downhill and we've yet to have any reported accidents. Whether it's an MTB or an eMTB, safety depends on the rider.
- Comment: eMTBs can go faster uphill, but the only damage they'll do is to their fellow MTB riders' Strava records.
- Erosion – Will the additional torque created by an electric motor increase erosion on natural surface trails?
 - A Comparison of Environmental Impacts from Mountain Bicycles, Class 1 Electric Mountain Bicycles, and Motorcycles: Soil Displacement and Erosion on Bike-Optimized Trails in a Western Oregon Forest, prepared by IMBA for the Bicycle Product Suppliers Association, released in 2016
 - This study found that the impacts from Class 1 eMTBs and traditional mountain bicycles were not significantly different, but stated that more research is needed.
- Comment: There are some who think the study's conclusions were biased in favor of the e-bike industry.

BCC e-bike Policy Options

- We currently explicitly prohibit e-bikes
 - Our trails in Trailforks do not allow e-bikes
 - Our Policy poster in the kiosks reads “Non-motorized Biking is permitted” and “Use of Motorized Wheeled Vehicles is prohibited”
- Options for a policy decision
 - Wait for more definitive studies on safety of and trail erosion caused by e-bikes before making a decision to change the “no e-bike” policy to allow some/all e-bikes
 - Remove the explicit prohibition from Trailforks and kiosk posters which will implicitly allow Class 1 and 2 and prohibit Class 3 e-bikes

Allowed Activity Types *

REQUIRED

- ☒ Mountain Bike
- ☐ E-Bike
- ☒ Hike
- ☒ Trail Running
- ☒ Horse
- ☐ Dirtbike
- ☐ Observed Trials
- ☐ ATV/ORV/OHV
- ☒ Snowmobile
- ☒ Snowshoe
- ☐ Downhill Ski
- ☐ Backcountry Ski
- ☒ Nordic Ski

