

WMPO Bicycle and Pedestrian Advisory Committee Model Electric Bicycle Ordinance

The purpose of this model ordinance is to provide clarity on how electric bicycles may be regulated in any of the WMPO Member Jurisdictions. This document provides guidelines on how e-bikes must be equipped and operated in order to protect the safety of e-bike operators, the riders of traditional bicycles, and pedestrians.

A. Applicability

- i. The provisions of this section shall apply to all public land and right of way.
- ii. It is at the discretion of the member jurisdiction to review and determine what public parks and gardens shall permit Classes 1 and 2 Electric Bicycles to be ridden on paths and trails.

B. Definitions

- i. *Electric bicycle or electric-assist bicycle*: a bicycle that uses an electric component to augment human power. The Consumer Product Safety Act (H.R. 727) defines a “low speed electric bicycle “ as “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 weights 170 points, is less than 20 mph.” The styles of e-bikes vary and can be classified in three ways.
- ii. *Class 1 Electric Bicycle*: 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 a speed of 20 miles per hour or greater.
- iii. *Class 2 Electric Bicycle*: a bicycle that is 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 speeds of 20 miles per hour or greater.
- iv. *Class 3 Electric Bicycle*: 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 a speed of 28 miles per hour or greater, and is equipped with a speedometer.

For all classes, the maximum power output is 750 watts. Manufacturers and distributors of electric bicycles are required to apply a class identification label to each electric bicycle.

C. Regulations pertaining to riding electric bicycles on public facilities

- i. The top priority of these regulations is safety. Class 1 and 2 bicycles are permitted to travel anywhere traditional bikes are permitted, as maximum assisted speeds of these vehicles is similar to the speeds traveled by traditional bicycles. Class 3 electric bicycles may be

ridden on streets and roadways where traditional bicycles are permitted, including bicycle lanes, but are restricted from slower speed areas such as multiuse paths and sidewalks.

- ii. Electric bicycles that are in class 1 and 2 are permitted to be ridden on designated off-road bicycle routes, designated park trails, multiuse paths and greenways, as well as the public roadway.
- iii. Electric bicycles in class 3 are not permitted on any off-road facility including unpaved park trails, sidewalks and multiuse paths. Class 3 electric bicycles are only permitted to be ridden on the public roadway, excluding fully controlled access highways.
- iv. Because of an electric bicycle's ability to reach speeds of 20 miles per hour with little to no pedal effort, every person operating any form of electric bicycle shall wear a helmet or hard-shell head cover secured to the head by a strap or retention device that complies with Federal Motor Vehicle Safety Standard 2018. The failure to wear a helmet shall be considered an infraction and is subject to a penalty of twenty-five dollars and fifty cents (\$25.50) plus the following court costs. This figure is derived from Chapter 20-140.4 of the North Carolina General Statutes pertaining to the operation of mopeds.
- v. Every person operating any form of electric bicycle on the public right of way must follow all bicycling traffic laws provided in Chapter 20 of the North Carolina General Statutes.