Date of Hearing: April 20, 2026

ASSEMBLY COMMITTEE ON TRANSPORTATION
Lori D. Wilson, Chair
AB 1942 (Bauer-Kahan) – As Introduced February 13, 2026

SUBJECT: Electric bicycles: registration and special license plates

SUMMARY: Requires class 2 and 3 electric bicycles to be registered with the Department of motor Vehicles (DMV), requires the DMV to issue a license plate that must be affixed to the rear of these bicycles, and imposes fines for violation of this requirement. Specifically, **this bill**:

1) Requires a license plate be affixed to the rear of a Class 2 and 3 electric bicycle and requires it to be clearly visible and legible at all times.

2) Specifies that a violation of this provision is an infraction punishable by a fine not to exceed one hundred dollars ($100) for the first offense, two hundred dollars ($200) for a second offense, and two hundred fifty dollars ($250) for each subsequent offense.

3) Requires DMV to adopt regulations to implement this article, including, but not limited to, the following:

    a) Application and issuance of registration and special license plates.

    b) Plate size, placement, and visibility requirements.

    c) Registration fees in an amount not to exceed the reasonable regulatory cost of issuing or renewing the registration.

    d) Proof of ownership requirements, including the provision of a serial number for the registered electric bicycle.

4) Establishes the Electric Bicycle Registration fund in the State Treasury and deposits all registration fees the DMV receives pursuant to this bill into the fund to pay for DMV's administration of this article.

5) Establishes a loan of an unspecified amount to the Electric Bicycle Registration Fund to administer this program, and requires DMV to pay the loan back with interest.

EXISTING LAW:

1) Defines an e-bike as a bicycle equipped with fully operational pedals and an electric motor that is not physically capable of exceeding 750 watts of power. (Vehicle Code Section (VEH) 312.5)

2) Defines a class 1 e-bike as a bicycle equipped with a motor that provides assistance only when the rider is pedaling, that is not capable of exclusively propelling the bicycle, that ceases to provide assistance when the bicycle reaches the speed of 20 miles per hour (mph), and is not capable of providing assistance to reach speeds greater than 20 miles per hour. (VEH 312.5)

3) Defines a class 2 e-bike as a 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 mph. (VEH 312.5)

4) Defines a class 3 electric bicycle as a bicycle equipped with a motor that provides assistance only when the rider is pedaling, that is not capable of exclusively propelling the bicycle, and that ceases to provide assistance when the bicycle reaches the speed of 28 mph, and equipping with a speedometer. (VEH 312.5)

5) Prohibits a person from tampering with or modifying an electric bicycle as to change the speed capability of the bicycle unless the modification keeps within the existing speed allowances of an electric bicycle. (VEH 24016)

6) Prohibits a person from selling a product, device or application that can modify the speed capability of an electric bicycle such that it no longer meets the definition of an electric bicycle. (VEH 24016)

7) Authorizes a peace officer to impound a vehicle that does not meet the definition of an electric bicycle and is both powered by an electric motor capable of exclusively propelling the vehicle in excess of 20 mph on a highway and is being operated without a license to operate that vehicle, or a person operating a vehicle that is a class 2 electric bicycle and is not 16 years of age. (VEH 22651.08)

8) Authorizes a city or county to create a bicycle registration program and sets the fees for such registration at $4 for each new bicycle license, $2 for each transfer or registration certificate, $2 for each replacement bicycle license, and $2 for each license renewal. (VEH 39004)

9) Prohibits a city or county, which adopts a bicycle licensing ordinance or resolution, from prohibiting the operation of an unlicensed bicycle (VEH 39002)

FISCAL EFFECT: Unknown

COMMENTS: More than half of all trips made in the United States are less than three miles. To cover these distances, e-bikes are surging in popularity, evolving from recreational devices into genuine car replacements. The speed of these devices, coupled with the reduced physical strain they require, makes them a convenient, low-cost choice for short-range commuting. Furthermore, with average prices ranging from $1,000 to $3,500, e-bikes offer a significantly more affordable alternative to traditional motor vehicles. Their expanded use supports California's environmental goals while potentially reducing traffic-related injuries and fatalities—which claimed over 4,400 lives in the state in 2024.

The lack of licensing and insurance requirements has further fueled this proliferation. In fact, e-bikes are now outselling electric cars: according to Kelley Blue Book, while 800,000 electric cars were purchased in the U.S. in 2022, e-bike imports reached 1.1 million. Projections indicate U.S. sales could reach 6.4 million units by 2025 due to rising demand. A 2024 survey by the Mineta Transportation Institute (MTI) found that 16% of U.S. adults had ridden an e-bike in the previous year, with 6% riding weekly. Additionally, the North American Bikeshare and Scootershare Association (NABSA) reported that riders logged 59 million trips on 76,000 shared e-bikes in 2024.

Growth in e-bike use has been accompanied by a rise in e-bike-related injuries and frustration from communities about potentially dangerous use of these devices. A new wave of high-speed electric motors has entered the California market, often exceeding the speed capabilities permitted by California law. In response to the rising number of hospitalizations across the state, several bills have been introduced this year to address safety and regulation.

Meeting California's environmental goals. In California, the transportation sector is the leading contributor of greenhouse gas (GHG) emissions and is responsible for about 40% of the state's emissions with light-duty passenger vehicles being the single leading contributor. The Legislature has set several goals to reduce greenhouse (GHG) emissions and address climate change. The Global Warming Solutions Act of 2006 [AB 32 (Nunez), Chapter 488, Statutes of 2006] and subsequent companion legislation SB 32 (Pavley), Chapter 249, Statutes of 2016, requires California to reduce statewide GHG emissions to 40% below the 1990 level by 2030.

Reducing the number of miles people drive every day will have a significant impact on reducing GHG emissions. Providing alternative modes of transportation such as public transit, e-bikes, or other shared ride approaches could significantly reduce the number of vehicle miles traveled (VMT) in California. California has targeted a 15% reduction in VMT by 2050 as part of its larger strategy to reduce GHG emissions by 80% from 1990 levels by 2050.

In the 2023 study titled *"Impacts of E-bike Ownership on Travel Behavior: Evidence from three Northern California rebate programs,"* researchers from UC Davis found that e-bike ownership leads to a measurable reduction in vehicle use. E-bike owners reported replacing one to three car trips per week with an e-bike, diverting between 12 and 44 kilograms of CO2 per month, or roughly equivalent to not burning five gallons of gasoline or the total emissions produced by running an average refrigerator for four months. If 1 million Californians (roughly 3% of the population) used e-bikes at the "high end" rate of this study, the state would reduce emissions by 528,000 metric tons of CO2 per year, The equivalent of taking 125,000 gas-powered cars off the road entirely.

Electric bicycle safety. As electric bicycle popularity has gone up, so have injuries. In 2023, the Legislature passed SB 381 (Min), Chapter 869, which directed the MTI at San Jose State University to study electric bicycles and the safety of riders and pedestrians.

MTI released the report *Exploring Electric Bicycle Safety Performance Policy Options for California* in December of 2025. That report provided a comprehensive review of how California and other states and countries regulate electric bicycles, a review of the electric bicycle safety literature, and strategies that the state could adopt to promote the safe use of electric bicycles.

According to the report, "In 2023, a total of 461,062 patients were treated at California hospitals with transportation-related injuries. Only 4,757 patients were identified as electric bicycle riders. Thus, electric bicycle riders comprised just 1% of all patients with transportation-related injury. Comparatively, 44,039 patients were identified as conventional bicycle riders, or 10% of all transportation-related patients. Overall, there were more than 9 times more injured conventional bicycle riders than injured electric bicycle riders. By far the most patients were injured in motor vehicle incidents: 62%."

The report found that electric bicycle-related injuries may result in slightly more hospitalizations than conventional bicycle incidents, specifically "In the National Electronic Injury Surveillance System (NEISS) injury dataset of U.S. hospital patients, electric bicycle patients were

hospitalized at only a three-percentage point greater rate than conventional bicycle patients (16% vs. 13%). Also, that gap disappeared when making an apples-to apples comparison of only those injuries occurring on streets. Finally, while the California hospital data did show more electric bicycle than conventional bicycle hospitalizations, the difference was a relatively modest six percentage points (17% vs. 11%). Looking at just injuries that took place on streets, conventional bicycles and electric bicycles had virtually identical hospitalization rates (18% vs 17%, respectively)."

In addition, most of the people involved in electric bicycle incidents are adults. NEISS reported that one in five electric bicycle patients (20%) were minors, almost identical to their share of the U.S. population. In comparison, 43% of conventional bicycle patients were minors. Slightly over half of the electric bicycle patients (54%) were adults aged 18 to 49 years. Electric bicycle patients had the oldest median age (34 years), a full decade higher than conventional bicycles (24 years). Mopeds/power-assisted cycles have the second highest median age, 30 years.

Most e-bike injuries are caused by the operators of the devices. According to NEISS data, 92% of patients were operating the device when injured, while 4% were bystanders. Bystanders struck by electric bicycles were hospitalized 12% of time, and bystanders struck by conventional bicycles were hospitalized 5% of the time.

The cause of the injuries while on an e-bikes was found to be nearly identical to the cause of injuries for riders of traditional bicycles. For e-bikes, 20% of injuries were caused by a collision with a motor vehicle, 4% were caused by a collision with another road user, and 51% were solo crashes. (The report notes that some of the solo crashes may have been caused by cyclists trying to avoid collisions with vehicles.) Twenty-five percent of the collisions were unspecified.

Illegal e-bikes are likely the problem. Illegal e-bikes are electric bicycles that exceed 750 watts of motor power, have a top speed greater than 20 mph (for Class 1 and 2) or 28 mph (for Class 3), or lack fully operable pedals. These vehicles are generally legally classified as electric motorcycles or mopeds, requiring registration, insurance, and proper licensing.

The e-bike landscape today is very challenging because many of the e-bikes that are causing crashes and creating a perceived nuisance in communities are illegal and it is very difficult to determine if an e-bike is legal or illegal by simply looking at it. In addition, illegal e-bikes, while they can be a nuisance and dangerous may not be the highest priority of local law enforcement. As a result, passing legislation targeting electric bicycles is unlikely to address the problems caused by illegal devices.

As part of the Mineta Institute report, surveys were conducted at Marin and San Mateo County middle and high schools to see what types of devices children were riding. Those surveys found that 88% of the devices at Marin County Schools and 87% of the devices at San Mateo County Schools were bicycles with electric motors that did not meet the definition of an electric bicycle, suggesting a significant proliferation of illegal devices into the marketplace, particularly for devices marketed towards children.

Legislative attempts to address electric bicycles and bicycle-shaped devices. The increased popularity of e-bikes and the rise of bicycle-shaped devices with electric motors has lead to an influx of legislation. Over the last several years this committee has heard many bills trying to address e-bike safety and curb the abuse of devices that look like an electric bicycle, but travel at speeds much greater than permitted by existing law.

State law prohibits people from modifying their e-bikes to operate at speeds greater than what is allowed. AB 1774 (Dixon), Chapter 55**,** Statutes of 2024 prohibited a person from selling a product or device that can modify the speed capability of an e-bike. AB 545 (Davies), Chapter 37, Statutes of 2025 prohibited the sale of applications that can boost an electric bicycle's speed greater than permitted by law. SB 1271 (Min), Chapter 891, Statutes of 2024 modifies the definition of an e-bike to make it clear that it cannot be capable of going greater than 20 miles per hour (class 1 or 2) or 28 miles per hour on pedal assist (class 3). AB 965 (Dixon), Chapter 65, Statutes of 2025 prohibits the sale of a class 3 electric bicycle to a person under the age of 16.

AB 875 (Muratsuchi), Chapter 168**,** Statutes of 2025 Authorized a peace officer to remove a vehicle with fewer than four wheels that does not meet the definition of an e-bike and is powered by an electric motor capable of exclusively propelling the vehicle in excess of 20 mph and is being operated without a current vehicle registration or by an operator who is not licensed to operate the vehicle.

In addition, there are two ongoing legislatively authorized pilots with age prohibitions on persons allowed to ride e-bikes. AB 2234 (Boerner), Chapter 823, Statutes of 2024 authorized cities within San Diego County and the county of San Diego to prohibit a person under the age of 12 from riding a class 1 or 2 electric bicycle. AB 1778 (Connolly) authorized cities in Marin and the county of Marin to prohibit persons under 16 from riding a class 2 electric bicycle and require everyone riding a class 2 electric bicycle to wear a helmet.

This year at least nine bills have been introduced to address concerns surrounding electric bicycles and bicycle shaped devices with electric motors. AB 1942 (Bauer-Kahan) requires class 2 and 3 electric bicycles to have a license plate. AB 2284 (Dixon) requires the Attorney General's office to create a list of devices that do not meet California's specifications to be an electric bicycle. AB 2346 (Wilson) sets speed limits for electric bicycles and various equipment requirements. AB 2595 (Papan) expands the San Diego pilot program to San Mateo, prohibiting those under 12 years old from riding a class 1 or 2 electric bicycle. AB 1569 (Davies) requires students to pass an electric bicycle safety course from the CHP to park their bicycles at school.

SB 1167 (Blakespear) redefines motor driven cycle and mopeds and creates disclosure requirements for selling such devices. SB 956 (Choi) authorizes local authorities to adopt and enforce speed limits, age requirements, and equipment requirements for electric bicycles.

Bicycle license plates. Bicycles, including electric bicycles, do not require a license plate. Under current law, AB 3329 (Bedham), Statutes of 1974 cities and local jurisdictions may collect a registration fee from cyclists to officially license bicycles. Many locals found that the revenue from registration fees was insufficient to cover the cost of the program and chose not to require bicycle registration in their jurisdictions or to abandon the bicycle licensing program altogether. AB 1909 (Friedman) Chapter 343, Statutes of 2022, explicitly prohibited local authorities from requiring registration, but can continue to offer it as a service.

Two-wheeled devices that are capable of self-propelled speeds greater than 20 mph are registered either as a moped (maxed out at 30 mph), motor driven cycle, or a motorcycle. These devices require a license plate. Mopeds (or motorized bicycles) require a one-time $23 registration.

Under this bill, a class 2 or 3 electric bicycle would be required to be registered by DMV and a special license plate affixed to the rear of the electric bicycle. DMV is tasked with creating the

new license plate and establishing a registration fee in an amount not to exceed the reasonable regulatory cost of issuing or renewing the registration.

This bill funds implementation of the program with a General Fund loan to the Electric Bicycle Registration Fund that DMV pays back with interest using electric bicycle registration fees. The amount of fees necessary to pay for the administration of the licensing program is not specified in this bill and it is unclear how that amount would be determined.

According to the author, "As the use of electric bicycles continues to grow across California, it is crucial that our policies keep pace to ensure safety and accountability on public streets, bike paths, and shared roadways. While e-bikes provide a valuable and sustainable transportation option, their growing presence has also created new safety and accountability challenges. Data shows an alarming increase in e-bike collisions, with a notable increase in the severity of injuries. Currently, there is no clear system to identify e-bike riders when collisions occur, when reckless riding is observed, or when theft takes place. This lack of identification makes it difficult for law enforcement and communities to ensure responsible use. AB 1942 requires class 2 and class 3 e-bikes to be registered with the Department of Motor Vehicles and display a license plate, creating a mechanism to support enforcement, improve public safety, and promote responsible use while preserving e-bikes as a sustainable transportation option."

According to the South Bay Cities Council of Governments, *writing in support of this bill*, "Over the last several years, e-bikes have become the best-selling electric vehicle in the country and are frequently bought as gifts for children and young adults. Although this measure does not directly address safety concerns, it does require that owners of the higher-speed devices register them with the DMV and display a license plate. This will help legitimize their use as modes of transportation and even alternatives to cars for short trips. The SBCCOG strongly supports e-bikes and other micromobility devices for making local trips and is encouraging broader adoption through our Local Travel Network program."

Streets For All, *writing in opposition to this bill,* argues: "We have three principal concerns: First, the addition of regulatory and cost barriers to the adoption and use of e-bikes will compromise California's efforts to encourage mode shift to walking, biking, and transit. Law-abiding Californians will bear the brunt of these barriers, while this bill will not curb illegal or dangerous behavior without massive effort - and spending - towards enforcement.

Second, this bill does nothing to address the behavior that has prompted recent concern. There is no doubt that California is facing a worrying trend as illegal electric devices proliferate, but imposing restrictions on e-bikes that fall within existing regulations is the wrong approach and will not change behavior or take illegal vehicles off the streets. Public concern is focused on vehicles already illegal under state law, often capable of over 40mph. This concern was specifically mentioned by Assemblymember Bauer-Kahan at her press conference on the bill, a concern which describes problems with illegal eMotos and not the legal e-bikes this bill addresses. Requiring the registration of legal e-bikes will not stop dangerous behavior any more than requiring the registration of motor vehicles has stopped sideshows.

Third, this bill raises the same equity concerns that prompted AB 1909 (2022) - the legislation which barred California municipalities from imposing their own bicycle registration programs. Historically, these programs have been used as a pretext for law enforcement stops of young men of color."

Committee concerns. According to DMV, requiring electric bicycles to have a license plate would require every electric bicycle rider on the road today and every future electric bicycle owner to have their bicycle physically inspected by the DMV to verify the bicycle the person owns is theirs, likely in an in-person inspection for the first registration (similar to how out of state vehicles are registered for the first time). Unlike a motor vehicle, bicycles do not have a standardized identification number, such as a vehicle identification number or VIN, or a standardized title proving ownership of the bicycle. Requiring electric bicycles to be registered with DMV may prove a costly burden both to the individual in terms of the cost and time spent registering the device, and to the DMV that may have to inspect hundreds of thousands of devices to properly register them.

Placing these burdens on electric bicycle owners could have the unintended consequence of deterring ownership of e-bikes. This would minimize the positive impacts of having a greater number of electric bicycles on the road. The benefits of replacing vehicles with e-bikes include reduced carbon emissions resulting from a significantly smaller carbon footprint and reduced traffic fatalities caused by vehicles which kill over 40,000 people in the United States every year. The benefits of making e-bikes more identifiable may be outweighed by the loss of positive benefits caused by increased use or a less robust expansion of the use of e-bikes.

If this committee were to consider registering class 2 and 3 e-bikes despite the potentially negative impacts discussed above, it is unclear why class 2 and 3 bikes were chosen for registration. Class 2 electric bicycles are capable of the same speeds as a class 1 electric bicycle (20 mph), yet this bill would not require class 1 e-bikes to be registered. Moreover, if registration were to help deter theft, it is unclear why class 1 e-bikes or all bikes for that matter would be excluded given the variance in the value of bike reflecting things such as the types of brakes and wheels, and the material the bike is made of rather than the speed the bike is capable of going.

In addition, the penalties this bill would impose could exceed the penalties imposed on the drivers of vehicles. This bill specifies that the penalty for violating this section shall not exceed $100 for the first offense, $200 for a second offense, or $250 for subsequent offenses. While this penalty schedule mirrors the standard penalty schedule for any infraction in the Vehicle Code, the standard infraction limits the increased penalties for subsequent offenses to a three-year period. Under this bill, a person could face an increased penalty with 10 years separating the offense, while the driver of car under a similar fact pattern would still be treated as a first-time offender.

This bill attempts to resolve some of the challenges around funding new programs or activities at the DMV because of the structural deficit of its primary funding source--the Motor Vehicle Account (MVA). According to the Legislative Analyst's Office (LAO), the MVA, the primary funding source for DMV, has been experiencing a structural imbalance for many years, with expenditures consistently outpacing revenues. The state has been able to delay the account's insolvency through various budget adjustments, policy changes, and temporary transfers from other special funds. Several underlying causes of the MVA's structural deficit remain unaddressed, and the account is projected to become insolvent from the 2028-29 budget year onward. Moreover, given the scale of the state's projected budget shortfall in the coming years, relying on the General Fund or other special funds to help cover the MVA expenditure will be

challenging. The LAO argues that every new expenditure from the account—especially those that are comparatively large—should be well justified and clear a high bar for approval.

To address the structural deficit of the MVA, this bill authorizes a loan to the DMV to implement this program. The DMV would be required to reimburse the General Fund, with interest after costs have been recovered. Vehicle registration fees are specified in statute. In contrast, this bill authorizes DMV to set the e-bike registration fee without legislative approval. With a new program being established, the registration fee for an electric bicycle could wind up costing more than a motor vehicle. Moreover, this bill requires electric bicycles to pay renewal registration fees. By comparison, owners of mopeds, which operate at greater speeds than a class 2 or 3 electric bicycle, only pay a one-time $23 registration fee.

REGISTERED SUPPORT / OPPOSITION:

Support

American Academy of Pediatrics, California
California Emergency Nurses Association
California Orthopedic Association
California Police Chiefs Association
City of Dublin
City of Livermore
City of Pleasanton
City of San Ramon
Santa Barbara; City of
South Bay Cities Council of Governments
Town of Danville
Town of Hillsborough
Three Individuals

Opposition

California Bicycle Coalition
City of San Mateo
Lime
PeopleForBikes
Streets for All
129 Individuals

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