

# Bike Safety in San Mateo County

*Making Bicycling Safer in the County*

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2022-23 San Mateo County Civil Grand Jury

*“Biking is one of the few activities that checks all the boxes at once — it’s active, practical, social, sustainable, stress-relieving, fun, and is a great family activity. Biking has the unique ability to elevate the mundane — it turns errands into adventures. More people on bikes keeps our streets safer, our air cleaner and our communities better connected.” Sonia Elkes, 2021 Bike Champion of the Year for San Mateo County Bay Area Bike to Work Website*

*“I often drive up Alpine Road near the Stanford golf course and I believe I would have a head-on crash with oncoming cars if I left a 3-foot margin between my car and the thoughtless bikers who ride out partially in the road. What is the best advice for that situation?” Comment on [Bicyclists Can Now Report 3’ Rule Violations Online](#) in *The Almanac* 5/12/2023.*

*“On the afternoon of Monday, April 10, bicyclist Lester Legarda was fatally struck by a driver on Cañada Road, a rural route popular among walkers, equestrians, and bicyclists. Details of the crash scene suggest that the collision speed was high. One solution to prevent future tragedies along Cañada is tantalizingly simple — reduce the 50-mph speed limit. Sure, drivers will likely continue to exceed the speed limit. But just like the paint on the road that defines where drivers are supposed to drive, posted speed limits set expectations for acceptable driver behavior.” [Reduce the speed limit on Canada Road](#) *San Mateo Daily Journal* 04/20/23.*

# **Bike Safety in San Mateo County: *Making Bicycling Safer in the County***

## **ISSUE**

As bicycle riding has become an ever more meaningful form of transportation, especially with the popularization of eBikes, the demand by County residents for safe micro-mobility solutions has soared. Are San Mateo County and its municipalities positioned to respond to safety concerns and meet those demands?

## **SUMMARY**

Whether for commuting or recreational purposes, residents in every jurisdiction of San Mateo County (SMC), as well as from the surrounding Bay Area counties, use bicycles. Because bicycles are widely available, for some the only mode of getting to and from work and jobs, and ridden in every jurisdiction, bicycle safety has become an increasingly important issue for SMC and its cities and towns. Without greater focus on bike safety, the number of riders will remain low, because people will avoid bicycling when they don't feel safe. The benefits of increasing bicycle riding are important to all residents of San Mateo County: reducing motor vehicles, healthy lifestyle and an inexpensive form of transportation. Accordingly, San Mateo County, and its cities and towns have a responsibility to make it safe for drivers and pedestrians, as well as bicyclists.

Due to differences in terrain, population density, and existing infrastructure, the 20 different municipalities and the unincorporated portions of the County have differing bicycle safety needs and requirements. Some cities are very hilly, making commuting to work, school, or transit stations nearly impossible. Others are more urban and accommodate many more commuting bicyclists. The County also has some areas that are primarily recreational biking destinations and areas that accommodate both commuting bicyclists and recreational bicyclists. As a result, each community also assigns a different level of importance to bicycle safety relative to other issues, such as crime, motor vehicle safety and public works improvement projects. And education and enforcement about bicycle laws varies from one jurisdiction to another.

Despite the differences among the jurisdictions, there are several commonalities. One is that cities and law enforcement do not consistently maintain records about bicycle near misses, accidents, or complaints; data is neither broadly available nor consistently maintained. Another commonality is that government entities focused on bicycling and/or improving bicycle safety do not communicate and collaborate with each other often enough, if at all. This makes it difficult to get accurate information on the number and severity of incidents and gauge how safe it is to bicycle in San Mateo County. Without data, and communication among the municipalities, San Mateo County and its cities and towns lose out on available state and local funding to improve bicycle safety through physical improvement projects.

To improve bicycle safety and thereby increase ridership, San Mateo County and its cities and towns need to:

1. Create effective ways to educate bicycle riders and motorists about bicycle rules of the road to enhance predictability.
2. Develop consistent communications among government organizations responsible for bike safety (e.g., between law enforcement and public works).
3. Conduct enforcement details in each jurisdiction to ensure enforcement leads to education.
4. Collect accurate data about accidents and incidents that is crucial to supporting and justifying grant applications and funding from State and local agencies for physical improvements to infrastructure for bicyclists (e.g., connectivity of bicycle routes from one city to another), needed signage, and other engineering improvements.

## BACKGROUND

Why is bike safety an important topic?

Statistically, the safer a person feels riding a bike, the more likely they will use it as regular transportation; both as a commuter and a recreational user.

Fifty-three percent of Americans worry about being hit by a motor vehicle when riding a bicycle; 47% say they would be more likely to ride a bike if pathways were physically separated from motor vehicles.<sup>1</sup>

However, bicycle accident statistics, though better than in 1998, averaged 231 fatalities and injuries over the last ten years. The average was 203 fatalities the last three years, but the drop includes the pandemic shutdown and more people working from home. The source of the recent data is the California Statewide Integrated Traffic Records System (SWITRS<sup>2</sup>) database, managed by the California Highway Patrol. All law enforcement agencies are required to submit accident data to the database on a regular basis.

A 2002-2003 SMC Civil Grand Jury titled, *Bike Safety in San Mateo County*<sup>3</sup>, questioned whether San Mateo County and the cities adequately consider and support safe bicycle travel? At that time, it was estimated that 46% of Americans bicycle for pleasure and 300,000 County residents bicycle at least occasionally. Commuting by bicycle was less than 1% in the County.

That year's Grand Jury found that bicycle infrastructure for safe travel needed improvement, but funding was an issue. It also found that communication and planning between the county and the cities on bicycle projects and safety could be improved. And that throughout SMC, bicycle safety was not a high priority. The primary recommendation of the report was the county, and all cities should develop a long-term strategic bicycle and safety plan.

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<sup>1</sup> People for Bikes: <https://www.peopleforbikes.org/news/building-for-tomorrow>

<sup>2</sup> <https://iswitrs.chp.ca.gov/Reports/jsp/logout.do>

<sup>3</sup> [https://www.sanmateocourt.org/court\\_divisions/grand\\_jury/2002reports.php?page=02SMC-Bicycle.html](https://www.sanmateocourt.org/court_divisions/grand_jury/2002reports.php?page=02SMC-Bicycle.html)

A few things have changed since then.

Over the years, the focus of cities and the county on improving bike and pedestrian forms of transportation has increased:

- Bicycle maps and routes are now generally available online.
- The City/County Association of Governments (C/CAG) updated their San Mateo County Comprehensive Bicycle and Pedestrian Plan in 2011<sup>4</sup> and 2021<sup>5</sup>.
- California enacted Assembly Bill 1358, **California Complete Streets Act of 2008**<sup>6</sup>, requiring all cities and counties to include complete streets policies as part of any substantial revision to the circulation element of their general plans; and cities and the County have adopted these complete streets policies, noting these policies in their Bicycle and Pedestrian Master Plans, or Active Transportation Plans.
- SMC and most of its municipalities have created and consistently upgraded their Bicycle and Pedestrian Master Plans.
- Unincorporated San Mateo County has created an Active Transportation Plan<sup>7</sup> (Active Transportation is a term often used to cover walking, bicycling, and other motorized devices as a primary mode of transportation).
- C/CAG, Unincorporated SMC and some cities have created Bike and Pedestrian Advisory Committees to address active transportation improvements, safety issues, and other citizen related requests.

Meanwhile, the number of bicyclists in San Mateo County has not increased since 2002, according to the California Household Travel Survey, which is regularly used for data on the number of bicyclists in a community, but is restricted to commuting.

The 2002 and 2012 surveys showed only 1% of SMC's population rides bicycles as a form of transportation. Looking at the various municipalities' Bicycle and Pedestrian Master Plans, and the surveys and counts discussed in the plans, bicycle commute ridership still hovers at approximately 1% within SMC.

It is important to note that the number of people in SMC using bicycles in lieu of a car has not increased in 20 years. This is in contrast to the estimated number of recreational bicyclists (46%) in SMC, who also use streets and bicycle paths and expect a safe ride<sup>8</sup>.

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<sup>4</sup> [https://ccag.ca.gov/wp-content/uploads/2014/07/CBPP\\_Main-Report\\_Sept2011\\_FINAL.pdf](https://ccag.ca.gov/wp-content/uploads/2014/07/CBPP_Main-Report_Sept2011_FINAL.pdf)

<sup>5</sup> [https://ccag.ca.gov/wp-content/uploads/2021/05/6\\_A1\\_San-Mateo-County-Comprehensive-Bicycle-and-Pedestrian-Plan-Update-Final-Plan.pdf](https://ccag.ca.gov/wp-content/uploads/2021/05/6_A1_San-Mateo-County-Comprehensive-Bicycle-and-Pedestrian-Plan-Update-Final-Plan.pdf)

<sup>6</sup> [http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab\\_1351-1400/ab\\_1358\\_bill\\_20080930\\_chaptered.pdf](http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab_1351-1400/ab_1358_bill_20080930_chaptered.pdf)

<sup>7</sup> <https://www.smcsustainability.org/livable-communities/active-transportation/unincorporated-smc-active-transportation-plan/>

<sup>8</sup> [https://ccag.ca.gov/wp-content/uploads/2021/05/6\\_A1\\_San-Mateo-County-Comprehensive-Bicycle-and-Pedestrian-Plan-Update-Final-Plan.pdf](https://ccag.ca.gov/wp-content/uploads/2021/05/6_A1_San-Mateo-County-Comprehensive-Bicycle-and-Pedestrian-Plan-Update-Final-Plan.pdf)

However, even with roadway and signage improvements over the past 20 years, there is much San Mateo cities and the county can do to improve bicycle safety.

## **DISCUSSION**

The merits of bicycle riding may seem self-evident, but a wide range of research reveals often surprising benefits to local economies, personal health, the environment, traffic congestion, and pedestrian safety that are unique to bicycle friendly communities.

### **Health Benefits**

Bicycle riding contributes to both physical and mental health. Regular exercise such as cycling can help prevent heart issues<sup>9</sup> such as stroke, heart attack, high blood pressure, and may also help prevent and manage type 2 diabetes.<sup>10</sup> Riding a bicycle is good for cognitive health and emotional well-being and can ease feelings of stress, depression, or anxiety.<sup>11</sup>

All in all, bicycling for only 30 minutes a day reduces a person’s chances of diabetes, dementia, depression, colon cancer, cardiovascular disease, anxiety and high blood pressure by 40 percent or more.<sup>12</sup>

The World Health Organization has found that “If every adult EU citizen walked or cycled for 15 extra minutes per day, we’d have 100,000 fewer people dying prematurely, each year.”<sup>13</sup>

### **Environmental Benefits**

Among the most obvious benefits of cycling is its benign effects on the environment. A solo driver in an average car releases about 1.1 pounds of CO<sub>2</sub> per mile.<sup>14</sup> A standard compact to midsize car that travels 12,000 miles will emit 11,000 pounds of CO<sub>2</sub>.<sup>15</sup> The average car produces about 1.3 billion cubic yards of polluted air over the course of its lifespan plus worn tire particles, brake wear, and the emissions from other materials in the car also contribute to air pollution.<sup>16</sup> Recent research in Europe found that traveling by bicycle instead of by car once a day decreases your transportation carbon footprint by 67%.<sup>17</sup>

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<sup>9</sup> <https://www.hopkinsmedicine.org/health/wellness-and-prevention/exercise-and-the-heart>

<sup>10</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4942105/>

<sup>11</sup> <https://www.psychologytoday.com/us/blog/minding-the-body/201505/bicycling-can-sharpen-your-thinking-and-improve-your-mood>

<sup>12</sup> [https://www.exerciseismedicine.org/assets/page\\_documents/EIMFactSheet\\_2014.pdf](https://www.exerciseismedicine.org/assets/page_documents/EIMFactSheet_2014.pdf)

<sup>13</sup> <https://ecf.com/news-and-events/news/walking-and-cycling-reduce-congestion>

<sup>14</sup> <https://www.sharetheroad.ca/what-are-the-environmental-traffic-congestion-benefits-of-cycling--s16223>

<sup>15</sup> <https://www.treehugger.com/cars-are-causing-air-pollution-we-breathe-new-study-finds-4856825>

<sup>16</sup> <https://www.scholaradvisor.com/essay-examples-for-college/bicycle-helps-reduce-air-pollution/>

<sup>17</sup> <https://www.sciencedirect.com/science/article/pii/S1361920921000687>

## Traffic

As active transportation choices like walking and bicycling gain attention and popularity, researchers are beginning to investigate the role these travel modes can play in reducing traffic congestion.<sup>18</sup> Studies show that measures taken to promote bicycling and walking have a positive effect on congestion.

Research in Washington, DC identified a causal effect of the presence of a bike-share station on traffic congestion. The result is a 2-to-3% reduction in traffic congestion that can be attributed to the bike-share station within the sample.<sup>19</sup>

## Economic Benefits

Among the more surprising findings is the positive economic impact from an increase in bicycle usage but studies show that the bicycle-related economy creates jobs, economic activity, and cost savings.<sup>20</sup>

Bicycle trails and facilities have a positive, statistically significant impact on home values; a 2006 study in Minneapolis found that the median home values rose \$510 for every quarter mile they were located closer to an off-street bikeway.<sup>21</sup>

Indianapolis' Cultural Trail, an 8-mile network of separated bike and pedestrian lanes, has reinvigorated a number of struggling business districts and sparked a whopping \$1 billion in increased property values.<sup>22</sup>

And in an era when streets and sidewalks across the county are in various states of disrepair, bicycle projects can significantly reduce the cost of maintaining and expanding our transportation systems.<sup>23</sup> Even protected bicycle lanes are "dirt cheap to build compared to road projects," says Gabe Klein, a partner at Fontinalis, a venture capitalist firm founded by Ford Motor Co. Chairman Bill Ford. Cities everywhere need to be more efficient about the money they spend to move people. "We need to get more use from the streets we already have."

Research indicates that investments in cycling infrastructure generate more jobs per dollar spent than investments in road-only infrastructure; cycling projects create a total of 11.4 local jobs for each \$1 million spent while road-only projects create 9.6 jobs per \$1 million.<sup>24</sup>

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<sup>18</sup> <https://kawarthanow.com/2019/01/17/reduce-traffic-congestion-bikes-can-do-that>

<sup>19</sup> <https://www.resources.org/archives/commentary-does-bicycle-infrastructure-reduce-traffic-congestion/>

<sup>20</sup> <https://railyards.com/blog/7-benefits-of-bike-friendly-communities>

<sup>21</sup> <https://smartcity.press/bicycle-infrastructure-in-smart-city/>

<sup>22</sup> <https://indyculturaltrail.org/2015/07/23/economic-impact-figures-released/>

<sup>23</sup> <https://www.aarp.org/livable-communities/getting-around/info-2016/why-bicycling-infrastructure-is-good-for-people-who-dont-ride-bikes.html>

<sup>24</sup> <https://www.sharetheroad.ca/what-are-the-environmental-traffic-congestion-benefits-of-cycling--s16223>

Bicycle friendly communities are important to millennial job seekers and functional bicycle infrastructures help companies attract talent. “States and cities are competing for the most mobile generation ever and so the job creators and the innovators are really pushing for these amenities.”<sup>25</sup>

## **Safety**

The most comprehensive study of bicycle and road safety to date finds that building safe facilities for cyclists is one of the biggest factors in road safety for everyone. Bicycling infrastructure -- specifically, separated and protected bike lanes -- leads to fewer fatalities and better road-safety outcomes for all road users.<sup>26</sup>

Davis, CA was the first city to gain “platinum” status by the League of American Bicyclists and is often referred to as the “bicycle capital of America.” From 1996 to 2007, Davis only had nine fatal road crashes. Despite having the largest percentage of bike commuters in the United States, none of these accidents involved a bicyclist. With a fatal crash rate of less than 1.5 per 100,000 residents, far fewer people are killed on Davis’ roads than in the U.S. as a whole, which averaged 14.5 fatalities per 100,000 residents.

Portland, OR, another platinum bicycling city, saw a nearly 50% decrease in road fatalities as it increased its bicycle mode share from 1.2% in 1990 to 5.8% in 2000. Bike friendly communities are safer for all road users, no matter what type of transportation is being used.

## **Social Benefits**

Finally, bicycle riding as an alternative to car travel is associated with a number of social benefits, including increased social interaction, social networks, and social capital.<sup>27</sup> A bicycle rider has a completely different relationship with their environment than those who are cocooned in their cars.

When communities invest in bicycle infrastructure, everyone benefits. Overall, bicycle commuters are healthier and bicycle-friendly streets are safer for everyone on the road. Bicycle friendly communities reap economic benefits including more retail activity and increased home values. The evidence is clear: bicycling brings big benefits to communities who embrace it.

## **Status Today**

Twenty years after the first San Mateo Grand Jury report, significant gaps remain in jurisdictions’ approach to bicycle safety:

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<sup>25</sup> <https://railyards.com/blog/7-benefits-of-bike-friendly-communities>

<sup>26</sup> [https://www.cnu.org/sites/default/files/marshallw\\_cnu18.pdf](https://www.cnu.org/sites/default/files/marshallw_cnu18.pdf)

<sup>27</sup> <https://www.peoplepoweredmovement.org/benefits-of-biking-walking/>



- San Mateo County and its municipalities’ characteristics make it difficult to create a consistent approach to bicycle safety.
- The use of bicycle safety education as a tool to increase safety for bicyclists and motorists is underutilized Countywide.
- Communication and coordinated planning across city lines is the exception, rather than the norm. Reporting of bicycle-related incidents is inconsistent throughout the county.
- Enforcement of bicycle laws, for motorists and bicyclists, is inconsistent and not prioritized.

### **Bicycle Safety in San Mateo County Cities**

Each city and town in San Mateo County is unique and has a different relationship with bicycle use and safety. These variations include:

- Topography
- Objectives and priorities re bicycles and ridership
- Safety Perception
- Infrastructure
- Impact of eBikes
- Role of enforcement in bicycle safety.

For example:

**Woodside and Portola Valley:** Woodside and Portola Valley are hill communities with narrow roads. Woodside has a very active Circulation Committee which keeps a close eye on large bicycling events in the community and Portola Valley is focused on managing bicyclists on the weekend. But in both cases, the communities concentrate on ensuring quality of life for residents. They both see mostly recreational bicyclists. Woodside has invested as much as \$1 million to ensure a “safe route to school” for the children. However, the communities don’t make a strong effort to track riders or accidents. In both communities the Sheriff’s Office, which is their policing arm, enforces rules at some problem locations, but not regularly.

**Hillsborough:** Hillsborough is a relatively insular community by nature of its location and topography. It has no commercial districts and is, to a large degree, rather hilly. The view on bicyclists is very much a neighborhood view: meaning the expectation is that if there are problems with bicyclists they are brought up by members of the neighborhoods. The primary focus on any kind of organized bicycling safety activity is efforts to teach children bicycle safety and safe routes to school at the beginning of the school year.

**Belmont:** Until quite recently, the City has been completely focused on ensuring that the community is comfortable for single family dwellings. However, areas close to El Camino Real are more commercial and have denser housing. The community now has both recreational and commuting bicyclists using the roads. While Belmont does have a bicycle master plan and holds an annual bike safety program for children and teenagers,

more needs to be done. The City needs to obtain funding from external Federal, State and County sources to do more.

**Half Moon Bay:** Possibly more than any other community in San Mateo County, Half Moon Bay has a sophisticated, complex relationship with bicyclists. On the one hand, Half Moon Bay attracts many visitors -- both vacationers and visitors from other Bay Area communities; and on the other hand, it has a robust population of residents who use their bicycles to get to work, school, and stores. Moreover, while Half Moon Bay has many surface streets, it is dominated by Highways 1 and 92 which have many challenging safety issues. As a result, the community has a bicycle master plan that focuses on bicycle safety and traffic planning. Despite this very proactive approach, the City deals with sometimes devastating safety issues. However, it appears that concern for bicycle safety is shared by many of the participants in the community.

**San Mateo:** The City of San Mateo updated its bicycle master plan in 2020. As a result, the City has focused on a variety of contemporaneous issues. These include working to develop a roadway network which could accommodate both bicycles and other types of active transportation. The City believes that it still skews toward recreational bicycling but is finding that more people want to use bicycles as a way of getting around. The master plan covers some education issues such as safe routes to school and safe bicycling for seniors. The plan does not talk about safety per se but addresses it from the vantage point of education. Though the City is focused on these matters it still recognizes that there's more education to be done about the rules of the road for bicyclists.

**Unincorporated San Mateo County:** Large areas of San Mateo County are small towns, private land, and open space, bisected, primarily, by two lane roads and highways. To address bicycle safety in these areas, the county created the Unincorporated San Mateo County Bicycle and Pedestrian Committee. Though there is no explicit Bicycle and Pedestrian Master Plan, they do contribute to the SMC Active Transportation plan. The Committee makes recommendations regarding bicycle and pedestrian related grants, but expressed frustration with money not being shared equitably. Additionally, the Committee inputs bicyclist's feedback. They are concerned with the number of incidents between motorists and bicyclists that are not addressed by law enforcement. The Committee has been working with the County Sheriff to address the problem.

These are just a few examples of San Mateo County and its municipalities' approach to bicycle safety. But because the communities are so diverse, thinking about bicycle safety needs to be broad-minded.

### **Bicycle Safety Education in SMC: Not just for cyclists**

Since bicycle safety is crucial to encouraging bicycle usage, it follows that bicycle safety education is an essential component of the bicycle safety equation.

According to the US Department of Transportation: “Educating people about safe bicycling and walking, enforcing laws that make it easier and safer for people to bicycle and walk, and encouraging people to bicycle and walk, may help increase walking and bicycling activity, especially when combined with infrastructure improvements.”<sup>28</sup>

Moreover, as noted on the National Highway Traffic Safety Administration’s Bicycle Safety web page, “A large percentage of crashes can be avoided if motorists and cyclists follow the rules of the road and watch out for each other.”<sup>29</sup>

In San Mateo County, much of the focus on bicycle safety and bicycle safety education is focused on ensuring safe routes to schools for children. Several communities, as detailed below, have much more comprehensive approaches to bicycle safety education in their Bicycle and Pedestrian Master Plans. Here are some examples:

- **Burlingame (Excerpt from the Bicycle and Pedestrian Master Plan)**

Policy 11: Educate people walking, bicycling, and driving, and the general public about roadway safety and the benefits of bicycling and walking.

11.1: Support the continuation and expansion of bicycle safety education programs such as those taught by Silicon Valley Bicycle Coalition and the San Mateo County Office of Education.

Policy 12: Encourage Burlingame public schools to participate in the Safe Routes to School program organized by the San Mateo County Office of Education.

- **Brisbane’s Master Bicycle and Pedestrian Plan examples:**

“Policy 4.A.5: Provide support for programs that educate drivers, bicyclists and pedestrians about their rights and responsibilities, as well as traffic education and safety programs for adults and youth.”

“Programs support bicycling and walking by providing encouragement to those considering bicycling and walking, education for motorists, bicyclists, and pedestrians about safe and appropriate sharing of streets and roads, and enforcement of traffic laws that help ensure the safety of vulnerable road users.”

- **County Sheriff:**

The San Mateo County Sheriff’s office publishes a pamphlet, *Bicycle Safety*<sup>30</sup>, on the California Vehicle Code sections related to bicycle safety. One City, Woodside, references this document, which could be used by all cities, schools and police

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<sup>28</sup> [https://safety.fhwa.dot.gov/ped\\_bike/ped\\_focus/docs/fhwasa17050.pdf](https://safety.fhwa.dot.gov/ped_bike/ped_focus/docs/fhwasa17050.pdf)

<sup>29</sup> <https://www.nhtsa.gov/road-safety/bicycle-safety>

<sup>30</sup> [https://www.woodsidetown.org/sites/default/files/fileattachments/community/page/33495/bicycle\\_safety.pdf](https://www.woodsidetown.org/sites/default/files/fileattachments/community/page/33495/bicycle_safety.pdf)

departments to improve bicycle safety education. However, the document is not available on the SMC Sheriff website.

- **City of San Mateo:**

San Mateo has some support for bicycle use and safety on its City website. The pages are listed in the table below.

EXISTING		
Support Program	Description	Webpage
Bicycle Webpage	There is brief text about bike routes and using a bike with public transport on the City’s webpage	<a href="http://www.cityofsanmateo.org/2125/Parking-and-Transportation">http://www.cityofsanmateo.org/2125/Parking-and-Transportation</a>
Bicycle Education Events	The city’s Public Works Department hosts an annual bike rodeo	<a href="http://www.cityofsanmateo.org/3736/Bike-Rodeo">http://www.cityofsanmateo.org/3736/Bike-Rodeo</a>

**Moving to Excellent Bike Safety Education in all SMC Cities**

Overall, the approach to bicycle safety education in SMC communities is inconsistent. Several of the master plans recognize that bicycle safety education is about teaching motorists and cyclists of all ages about the guidelines for bicycle safety. Other communities either don’t focus much on education or are focused exclusively on “Safe Routes to School”.

Nonetheless, there are a handful of programs identified in the table below that creatively address bicycle safety, which San Mateo County and its municipalities should consider adopting.

<b>RECOMMENDED FOR ALL SMC CITIES</b>		
<b>Support Program</b>	<b>Description</b>	<b>Webpage</b>
Establish child and adult education programs	Identify and implement education programs for children and adults that build bicyclists' confidence, done in coordination with the Parks and Recreation Department, Police or Local Schools.	<a href="https://www.portlandoregon.gov/transportation/article/565224">https://www.portlandoregon.gov/transportation/article/565224</a>  <a href="http://www.cityofsanmateo.org/2125/Parking-and-Transportation">http://www.cityofsanmateo.org/2125/Parking-and-Transportation</a>
Establish Safe Routes to School Funding	Establish a stable funding source for Safe Routes to School programming	<a href="https://www.metro.net/projects/sr_ts/fund-your-program">https://www.metro.net/projects/sr_ts/fund-your-program</a>
Implement and promote demonstration projects	Implement short-term, high-visibility bicycle demonstration or 'pop-up' projects to serve as models that can be applied throughout the city. Market bicycle safety.	<a href="https://transportation.bellevuewa.gov/UserFiles/Servers/Server_4779004/File/Transportation/Publications/PBII_Demo%20Bikeway%20Brochure_20180205.pdf">https://transportation.bellevuewa.gov/UserFiles/Servers/Server_4779004/File/Transportation/Publications/PBII_Demo%20Bikeway%20Brochure_20180205.pdf</a>
Provide safety education program for users of all modes	Provide safety education programs or communications campaigns for people driving, bicycling, walking, and using micro mobility devices that encourage safe travel behaviors.	<a href="http://www.pedbikeinfo.org/">http://www.pedbikeinfo.org/</a>
Create a robust bicycling webpage	Develop and maintain a content rich mobility webpage(s) on the County/City website and communicate how to reach city destinations by bike, on foot or on micro-mobility devices. Include information on these transportation options.	<a href="https://www.metro.net/riding/go-bike">https://www.metro.net/riding/go-bike</a>  <a href="http://www.cityofsanmateo.org/2125/Parking-and-Transportation">http://www.cityofsanmateo.org/2125/Parking-and-Transportation</a>

## **Bicycle & Pedestrian Master Plans and Advisory Committees: Planning Across the County**

The 2002 SMC Grand Jury Report recommended that all municipalities create Bicycle and Pedestrian Master Plans. As a best practice, the municipalities were encouraged to form Bicycle and Pedestrian Advisory Committees.

To date, almost all San Mateo County jurisdictions or cities have Bicycle and Pedestrian Master Plans, or Active Transportation Plans. Most, if not all of these plans, align with recommendations from the 2011 C/CAG's San Mateo County Comprehensive Bicycle and Pedestrian Plan. The 2021 update of C/CAG's plan enhances and adds to the 2011 C/CAG San Mateo County plan, but most of the cities and towns have not updated their plans to be consistent with the 2021 plan. (See Appendix D for a complete list of San Mateo County's Bicycle & Pedestrian Master Plans.)

The cities' bicycle and pedestrian master plans help each city by identifying strategies to improve bicycle and pedestrian safety. The plans recommend improvements for roadway connectivity for bicyclists and pedestrians, within each city as well as with neighboring cities. Numerous plans reference the Silicon Valley Bicycle Coalition and the League of American Bicyclists (LAB) as organizations that have certified instructors for bicycle safety education. At least several of the plans also discuss the LAB Bicycle Friendly Community Report Card to which five SMC cities and San Mateo County belong. The plans list potential State and Federal funding for projects that improve safety and roadway connectivity and make clear the importance of annually evaluating and tracking progress against objectives.

However, in SMC, County committees and municipalities do not always work together to generate consistent plans that meet C/CAG's goal for a Countywide bicycle backbone. Though C/CAG does have an advisory committee which includes representatives from municipalities, it does not have control over what individual municipalities decide to do regarding grant applications, infrastructure projects for better bicycle and pedestrian safety and education initiatives. If the municipalities endeavored to work together to prioritize projects and programs that are consistent with C/CAG's priorities, it would benefit all of San Mateo County, especially with respect to providing north-south connectivity between municipalities.

### **Metrics: If you don't measure it, you can't improve it.**

One important measure of bicycle safety is arriving safely at a destination. This is usually reflected in the negative; that is, the number of fatalities and injuries during a calendar year versus the number of successful bicycle trips.

In San Mateo County, the cities and county rely heavily on data supplied to the California Highway Patrol (CHP) to state the number of fatalities and injuries. The CHP then maintains a database, SWITRS (California Statewide Integrated Traffic Records System), which is accessible

to the public. And, UC Berkeley maintains a website, TIMS<sup>31</sup> (Transportation Injury Mapping System), which can further refine the raw data from SWITRS.

However, relying on this data to evaluate Bicycle Safety is problematic.

Law enforcement agencies in the County submit their bicycle accident data to SWITRS based on incidents that result in fatality or injury. However, there are bicycle accidents resulting in injury which don't make it into SWITRS because law enforcement is not called. Some examples are bicyclists being forced off the road by motor vehicles, collision near misses and, of course, bicyclist error. Consequently, the actual number of bicycle accidents is underreported and, more importantly, the list of accident locations is not complete. Cyclists that have an incident that does not involve either the police or the fire department do not have a consistent means to log their experience. That data goes unreported. And this goes both ways; there is no means for a motorist to complain about bicycle riders' unsafe behavior.

Countywide there is no uniform metric to measure Bicycle Safety. Without such a measure, it's impossible to assess progress while building infrastructure, enforcing laws, and educating everyone in safety principles.

An obvious metric is bicycle accidents as recorded by SWITRS and online reports, but there is another metric which evaluates the complex equation that results in safe bicycling: ***Bicycle Friendly America Certification***<sup>32</sup>.

The League of American Cyclists is a national organization dedicated to creating "safer roads, stronger communities and a Bicycle Friendly America for everyone." This is a grassroots organization dedicated since 1880 to protecting the right to safe and enjoyable bicycling. A valuable achievement of this organization is establishing the Bicycle Friendly America (BFA) certification for cities and counties. This consists of a very detailed application<sup>33</sup> that a city or county official fills out to get a comprehensive rating of bicycle safety. BFA defines bicycle safety using 5 E's:

- Equity and Accessibility: A bicycle-friendly America for everyone
- Engineering: Creating safe and creative places to ride and park
- Education: Giving people of all ages and abilities the skills and confidence to ride
- Encouragement: Creating a strong bike culture that welcomes and celebrates bicycling
- Evaluation and Planning: Planning for bicycling as a safe and viable transportation option [Note that Enforcement, a common element in the 5 E's of safety, is not included in the BFA definition.]

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<sup>31</sup><https://tims.berkeley.edu/summary.php?showArea=city&expandTables=false&injury=3&yearRange=3&showMap=crashes>

<sup>32</sup> <https://bikeleague.org/bfa/>

<sup>33</sup> <https://bicyclefriendly.secure-platform.com/a/organizations/main/home>

The application covers the BFA 5 E's and investigates what it calls the 10 building blocks of a Bicycle Friendly Community (BFC). Finally, the rating includes steps to reaching the next level of excellence. Oakland in 2022, for example, received a GOLD rating Report Card<sup>34</sup> having been BRONZE in 2010 and SILVER in 2014. The following cities and SMC have received the following ratings:

- Menlo Park<sup>35</sup>: GOLD: 2017
- Redwood City<sup>36</sup>: BRONZE: 2016
- San Carlos<sup>37</sup>: BRONZE: 2016
- San Mateo<sup>38</sup>: BRONZE: 2016
- South San Francisco<sup>39</sup>: BRONZE: 2018
- San Mateo County<sup>40</sup>: BRONZE: 2016

The BFC Report Card is a valuable metric that all cities and the County should make use of. If SMC cities develop the information necessary to answer objective and comprehensive questions about bicycle safety, each jurisdiction would have a consistent metric that can be used to measure bicycle safety progress across the County.

### **Law Enforcement and Bicycle Safety**

Laws regarding the operation of bicycles are in the California Vehicle Code (CVC), but in general, bicycles are governed by the same rules of the road as motor vehicles.

SMC law enforcement organizations are concerned that there is currently no way for them to track bicycle, pedestrian, and vehicle accidents, from near misses to actual contact, that did not require police involvement. And, even if an incident or infraction is reported, an officer may or may not go out to speak with the complainant.

Other than the initial report, there is no single repository in SMC to store and retrieve information regarding bicycle-related citations or enforcement of bicycle law so it can be used in the future.

And perhaps most importantly, the enforcement of laws, regarding motorists and bicyclists, is inconsistent due to competing priorities and the requirement that a citation requires an incident be witnessed by an officer.

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<sup>34</sup> [https://bikeleague.org/sites/default/files/bfareportcards/BFC\\_Fall\\_2022\\_ReportCard\\_Oakland\\_CA.pdf](https://bikeleague.org/sites/default/files/bfareportcards/BFC_Fall_2022_ReportCard_Oakland_CA.pdf)

<sup>35</sup> [https://bikeleague.org/sites/default/files/bfareportcards/BFC\\_Fall\\_2017\\_ReportCard\\_Menlo\\_Park\\_CA.pdf](https://bikeleague.org/sites/default/files/bfareportcards/BFC_Fall_2017_ReportCard_Menlo_Park_CA.pdf)

<sup>36</sup> [https://bikeleague.org/sites/default/files/bfareportcards/BFC\\_Spring\\_2016\\_ReportCard\\_Redwood\\_City\\_CA.pdf](https://bikeleague.org/sites/default/files/bfareportcards/BFC_Spring_2016_ReportCard_Redwood_City_CA.pdf)

<sup>37</sup> [https://bikeleague.org/sites/default/files/bfareportcards/BFC\\_Fall\\_2016\\_ReportCard\\_San\\_Carlos\\_CA.pdf](https://bikeleague.org/sites/default/files/bfareportcards/BFC_Fall_2016_ReportCard_San_Carlos_CA.pdf)

<sup>38</sup> [https://bikeleague.org/sites/default/files/bfareportcards/BFC\\_Fall\\_2016\\_ReportCard\\_San\\_Mateo\\_CA.pdf](https://bikeleague.org/sites/default/files/bfareportcards/BFC_Fall_2016_ReportCard_San_Mateo_CA.pdf)

<sup>39</sup> [https://bikeleague.org/sites/default/files/bfareportcards/BFC\\_Fall\\_2018\\_ReportCard\\_South\\_San\\_Francisco\\_CA.pdf](https://bikeleague.org/sites/default/files/bfareportcards/BFC_Fall_2018_ReportCard_South_San_Francisco_CA.pdf)

<sup>40</sup> [https://bikeleague.org/sites/default/files/bfareportcards/BFC\\_Spring\\_2016\\_ReportCard\\_San\\_Mateo\\_County\\_CA.pdf](https://bikeleague.org/sites/default/files/bfareportcards/BFC_Spring_2016_ReportCard_San_Mateo_County_CA.pdf)



## **Conflicting Priorities**

Law enforcement prioritizes assets based on the needs of the community, as well as their operating budget, when it comes to providing services. While public and political prioritization of bicycle safety issues may come up from time to time, calls for service are always prioritized. This results in minimal officer resources dedicated to bicycle safety.

Police forces will:

- Focus resources or staff on bicycle safety, if there is an uptick in accidents at a particular location, citizen requests/calls, or requests from a jurisdiction’s public works or traffic departments to focus on certain locations; or
- Provide teams to schools and special events for bicycle safety education
- Much less often, assign their police officers to bicycle safety duty exclusively (some police departments do have officers that patrol on bicycles).

In addition, law enforcement agencies do not always enforce eBike laws, but this is mostly due to the popularity of eBikes being ahead of law enforcement policies.

Because of these conflicting priorities, and limited staff, enforcement of bicycle laws pertaining to motorists as well as bicyclists appears to be underreported.

## **Policing Bicycles and eBikes**

Law enforcement departments in the county are very aware of the importance of bicycle safety. Common sense says people generally want the streets to be safe for motor vehicles which translates to most officer resources going to motor vehicle enforcement.

It’s possible that safer bicycle riding could lead to fewer cars and free up police resources for more pressing issues.

## **The New 3’ Law for Motorists and Bicycles**

In January 2023, California amended the California Vehicle Code (CVC). The new law (AB. 1909) requires all motorists to give a bicyclist three feet of clearance when passing on the left-hand side of the bicyclist or (depending on the width of the road) reduce speed appropriately, when passing. (See CVC: 21750 (b) (c) (d)). This is particularly crucial on narrow two-lane roads where there are many reports of bicyclists being forced off the road or hit by motor vehicles.

Hampering the situation is the requirement that a citation can only be written if the incident is witnessed by the officer. With the advent of helmet-worn cameras, cyclists have attempted to record these incidents with the hope that the recording can be used as “visual evidence”. But this evidence, post incident, cannot be used to issue a citation.

The San Mateo County Sheriff’s Department recently announced it will allow the public to submit these incidents on the Sheriff’s website.<sup>41</sup> These reports have since resulted in the

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<sup>41</sup><https://www.almanacnews.com/news/2023/05/12/bicyclists-can-now-report-3-foot-rule-violations-online-in-san-mateo-county>

department sending a violation letter to the offending motorist; this is not a citation. However, only incidents that occur in unincorporated San Mateo County, Woodside, Portola Valley, San Carlos, Half Moon Bay, and Millbrae can use this online resource.

### **Citations vs. Reprimands for Education Purposes:**

It is at the officer's discretion, when addressing a law infraction, to issue a citation or give a reprimand. One advantage of a reprimand is that it creates an opportunity to educate. With officers focusing on education, these brief encounters, cumulatively, can do a lot to improve bicycle safety, for bicyclists and motorists. But only if these reprimand stops are recorded officially can an accurate picture of bicycle safety be established.

### **FINDINGS**

F1. Bicycle policy and the approach to ensuring/improving bicycle safety is not consistent across San Mateo County due, at least in part, to:

- a. Topography
- b. Urban vs. suburban environments
- c. Types of bicyclists (commuter, recreational)
- d. Varying levels of enforcement of bicycle laws
- e. Differing knowledge of bicycle laws and safe practices.

F2. Bicycle ridership as an alternative means of transportation (e.g., commuting to work, school, or transit hubs, running errands) is not increasing due, at least in part, to perceived safety issues.

F3. Bicycle accidents and incidents (such as near misses) are underreported, if reported at all.

F4. Only bicycle accidents or incidents that trigger a 911 call are consistently logged in the State (SWITRS) database and law enforcement agencies do not log bicycle accident data consistently.

F5. The amount of enforcement of laws, as they pertain to bicyclists and how motorists and bicyclists interact, is inconsistent due to other priorities (e.g., criminal enforcement and general automobile traffic) and the requirement that a citation can generally only be written if the violation is witnessed by an officer.

F6. There is no official metric in San Mateo County and its cities to evaluate how safe it is to ride a bicycle.

F7. Bicycle safety education, for the bicyclist, pedestrians and motorists, is not consistently offered across San Mateo County.

F8. Communication between various entities with responsibility for bicycle safety, including Bicycle and Pedestrian Advisory Committees (BPACs), Law Enforcement, City Transportation Planning, and Public Works departments, is not formalized, resulting in inefficiencies, and missed opportunities (e.g., funding for improvements, shared bike safety education, or improving signage).

F9. City Bicycle and Pedestrian Master Plans or Active Transportation Plans, have not been adopted/created by all SMC cities.

## **RECOMMENDATIONS**

R1. By December 2023, all law enforcement agencies and the County Sheriff should submit bicycle related data to SWITRS monthly, and regularly post and update their websites with all reported bicycle accident data.

R2. By December 2023, all law enforcement agencies should begin sending warning letters to motorists for violations of the 3 ft. law.

R3. By June 3, 2024, all law enforcement agencies should provide a means for citizens to report bicycle-related incidents that are not currently reported to law enforcement, similar to the SMC Sheriff's Department Online Crime Reporting portal.

R4. By June 3, 2024 each city, town, and unincorporated SMC should offer a bike safety education program for riders and motorists about the laws and safety facts related to bicycles on the road.

R5. By June 3, 2024, each city, town, and unincorporated SMC should update or generate a new Bicycle and Pedestrian Master Plan (or Active Transportation Plan) if their current plan is older than five years; consistent with the 2021 C/CAG San Mateo County Comprehensive Bicycle and Pedestrian Plan.

R6. By June 3, 2024, each city, town, and the county should apply (or reapply) online to generate the Bicycle Friendly Community Report Card.

R7. By February 1, 2024, the County should meet with cities within the County that are willing to participate, to consider establishing a regional effort that integrates the cities' bicycle plans and to discuss how the cities and County could work together to apply for grant opportunities as a region.

## **REQUEST FOR RESPONSES**

Pursuant to Penal Code Section 933.05, the Civil Grand Jury requests responses from the San Mateo County Board of Supervisors, County Sheriff and all 20 cities and towns' governing bodies for each Finding and Recommendation.

The governing bodies should be aware that their comments or responses must be conducted subject to the Brown Act's notice, agenda, and open meeting requirements.

## **RESPONSE REQUIREMENTS**

California Penal Code Section 933.05, provides (emphasis added):

(a) For purposes of subdivision (b) of Section 933, as to each grand jury finding, the responding person or entity shall report one of the following:

- (1) The respondent **agrees** with the finding.
  - (2) The respondent **disagrees** wholly or partially with the finding; in which case the response **shall specify the portion of the finding that is disputed and shall include an explanation of the reasons, therefore.**
- (b) For purposes of subdivision (b) of Section 933, as to each grand jury recommendation, the responding person or entity shall report one of the following actions:
- (1) The recommendation has been implemented, **with a summary regarding the implemented action.**
  - (2) The recommendation has not been implemented, but will be implemented in the future, **with a timeframe for implementation.**
  - (3) The recommendation requires further analysis, **with an explanation and the scope and parameters of an analysis or study, and a timeframe for the matter to be prepared for discussion by the officer or head of the agency or department being investigated or reviewed, including the governing body of the public agency when applicable. This timeframe shall not exceed six months from the date of publication of the grand jury report.**
  - (4) The recommendation will not be implemented because it is not warranted or is not reasonable, **with an explanation, therefore.**

## METHODOLOGY

The Grand Jury used a variety of tools to obtain information regarding bicycle riding and safety in San Mateo County:

- **Documents:** The Bike and Pedestrian Master Plans that cities use to explain approaches to planning, prioritizing projects, and re-engineering their communities to make riding and walking easier and safer. These documents came with a variety of titles:
  - Bike and Pedestrian Master Plans
  - Active Transportation Plans
  - Micro-Mobility Plans
  - Transportation Plans
- **Internet:** Almost all the historical and current information (including the availability of documents) regarding bicycle safety came from internet searches. Information from those searches was verified.
- **Survey:** The Grand Jury sent a survey in December 2022 using Google Forms to understand whether the cities believe eBikes were an issue in their communities. The results helped in defining the broader issue of bicycle safety.
  - The survey questions and results are in Appendix A.
  - Participants: The survey was sent to all the cities in SMC and, specifically, the City Managers. Many chose to have the chief of police of their city fill out the survey. Two cities did not respond to the survey.
- **Interviews:** The survey helped the Grand Jury develop a list of individuals for interviews. The questions for the interview came as a result of the investigation's pivot to the state of bicycle safety in San Mateo County as a general topic.
  - Participants:
    - Cities: Belmont, Daly City, Half Moon Bay, Hillsborough, Pacifica, Portola Valley, San Mateo, Woodside
    - Unincorporated San Mateo County
    - Police Departments: Burlingame, Foster City, Hillsborough, Redwood City, South San Francisco
    - Sheriff of SMC
    - BPACs: CCAG, Unincorporated SMC
    - CyclistVideoEvidence.com: Craig Davis

## GLOSSARY

3 ft. Rule – Motorists must yield at least 3 feet between their vehicle and a bicyclist on all roadways. This rule was amended by State legislation through Assembly Bill 1909, approved by the Governor in 2022, and commencing January 2024. Additionally, this bill requires a vehicle that is passing or overtaking a vehicle to move over to an adjacent lane of traffic, as specified, if one is available, before passing or overtaking the bicycle.

Active Transportation - A means of getting around that is powered by human energy, primarily walking and bicycling.

BFA – Bike Friendly America. A program sponsored by the League of American Bicyclists to evaluate communities with respect to their support for bicycling. As of December 2022, 501 communities are certified.

BFC – Bike Friendly Community. A Bike Friendly Awards Report Card that is given to a community that applies for a ranking (i.e., Bronze, Silver, Gold, Platinum).

BPAC – Bicycle and Pedestrian Advisory Committee

CATSIP – California Active Transportation Safety Information Pages. An online resource for improving pedestrian and bicycle safety in California. This site is administered by UC Berkeley Safe Transportation Research and Education Center (SafeTREC)<sup>42</sup>. Funding for this program was provided by a grant from the California Office of Traffic Safety<sup>43</sup>, through the National Highway Traffic Safety Administration (NHTSA).

C/CAG – City County Association of Governments of San Mateo County

Bicycle Roadways

- Bike paths (Class I): also termed shared-use or multi-use paths, are paved rights-of-way for exclusive use by bicyclists, pedestrians and those using non-motorized modes of travel. They are physically separated from vehicular traffic and can be constructed in roadway rights-of-way or exclusive rights-of-way. Bike paths provide critical connections in the city where roadways are absent or are not conducive to bicycle travel.
- Bike lanes (Class II): are defined by pavement striping and signage used to allocate a portion of a roadway for exclusive or preferential bicycle travel. Bike lanes are one-way facilities on either side of a roadway. Whenever possible, bike lanes should be enhanced with treatments that improve safety and connectivity by addressing site-specific issues, such as additional warning or wayfinding signage.
- Bike routes (Class III): provide shared use with motor vehicle traffic within the same travel lane. Designated by signs, bike routes provide continuity to other bike facilities or designate preferred routes through corridors with high demand. Whenever possible, bike

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<sup>42</sup> <http://safetrec.berkeley.edu/>

<sup>43</sup> <http://www.ots.ca.gov/>

routes should be enhanced with treatments that improve safety and connectivity, such as the use of "Sharrows" or shared lane markings to delineate the road as a shared-use facility.

- Cycle tracks (Class IV): Also referred to as protected bikeways, are exclusive bike facilities that combine the user experience of a separated path with the on-street infrastructure of a conventional bike lane. A cycle track is physically separated from motor traffic and distinct from the sidewalk. The separation may be in the form of posts, parked cars or a combination of both.

eBike – motorized bicycle that comes in three different classes:

- Class I: Bicycle equipped with a motor that aids only when pedaling and ceases when 20 mph is reached.
- Class II: Same capability as a Class 1 eBike with a throttle-actuated motor. No pedaling required when operated with the throttle.
- Class III: Bicycle equipped with a motor that aids only when pedaling and ceases when 28 mph is reached.

GJ – Grand Jury

MTC – Metropolitan Transportation Commission is the transportation planning, financing, and coordinating agency for the nine-county San Francisco Bay Area.

SHARROW – Sharrows are pavement markings that have been installed on city streets to provide guidance for both bicyclists and vehicles on roadways when sharing the road.

SMC ATP: San Mateo County Active Transportation Plan is a comprehensive framework to guide the development of active transportation projects and programs for walking, bicycling, and other forms of human powered movement for people of all ages and abilities throughout unincorporated County communities.

SWITRS – California Statewide Integrated Traffic Records System.

TIMS – Transportation Injury Mapping System developed by the Safe Transportation Research & Education Center at the University of California, Berkeley.

TR-INST Form – Notice to Appear form used by law enforcement for law infractions.

## **APPENDIX A: Bicycle Safety Best Practices**

### **Bicycle Education Best Practices**

There are two excellent examples of California communities that are investing in Bike Safety education: Davis and San Diego.

#### **San Diego Bike Coalition:**

This is an excellent reference tool to see all the kinds of bicycle safety education that can be offered and the resources that can be used to teach those courses. Again, the classes range from those for a variety of ages of bicyclists, basic bicycling, bicycle friendly motorist safety, and others.

<https://sdbikecoalition.org/our-work/education/>

#### **Davis, California:**

The City of Davis, CA, which is one of the leading bicycle communities in the US, has several pages of information about bike safety education on its website.

<https://www.cityofdavis.org/city-hall/public-works-engineering-and-transportation/bike-pedestrian-program>

### **Two Cities Committed to Bicycling: Portland, Oregon and Davis, California**

Portland and Davis have become famous for their commitment to supporting bicycling, not only as recreational, but also as a true commuter alternative to motor vehicles and public transportation. Both have received the Platinum rating for a Bicycle Friendly Community from The League of American Bicyclists, while being quite different communities.

Portland is a large city of 622,000 residents with similar topography to the linked San Mateo County cities along El Camino Real: hilly and flat lands, urban centers, urban neighborhoods, suburbia, and major freeways. Portland advertises itself as “Bicycle Friendly” and claimed the highest percentage of bike commuters in US large cities in 2019 at 6% (Portland does annual bike ride census counts). Portland started investing in bicycle infrastructure with the acceptance of the 1973 Portland Bike Plan and the formation of a Bicycle Advisory Committee within the City Transportation Department. Since then, it has created:

- 385 miles of bikeways
- 36 miles of protected bike lanes
- A pedestrian and bicycle only bridge over the Willamette River and protected bike lanes on other bridges
- Intersections with bicycle specific traffic signals



- Bicycle boxes<sup>44</sup> at intersections to raise the visibility for motorists turning right
- A Safe Routes for Schools serving 100 schools
- 6500 bike racks to meet increased demand for safe stow of bicycles
- 3 bicycle plans over 40 years that establish policy, goals and a bikeway network
- \$60 M spent to 2008 on bicycle infrastructure (one mile of installed freeway costs \$60M)

Portland's safety record is very good for a large city: 4.3% of all traffic injury accidents from 2015-2019 are bicycle related. In comparison, San Francisco's number is 14% for the same period. Portland also does better than San Mateo County (8%) and a representative city, Redwood City (10%).

Davis in California is a small city between San Francisco and Sacramento with a population of 66,800. It has earned a nationwide reputation for supporting bicycles in its community (there is a bicycle on the city logo). The topography of Davis could not be flatter and more conducive to bicycle riding. The current statistics indicate that 20% of Davis's population commutes on bicycles. In 1967, Davis was the first community in the US to develop dedicated bicycle lanes (a total of 4!). The origins of this project were a couple that had visited the Netherlands, often cited as the most bicycle friendly nation in the world. They were so impressed with the bicycle infrastructure that they started a grassroots movement in Davis to promote safe bicycle riding. The group had to overcome CA law that did not support bike lanes on city streets, but once the law was revised, Davis proceeded to create bicycle infrastructure throughout the City:

- 63 miles of pathways
- 102 miles of bike lanes
- 75% of roads have a posted speed limit of 25 mph
- Of the 169 miles in the road network, 140 miles of roads are posted at 25 mph or less., 21 miles of roads are posted at between 25 mph and 35 mph, and 8 miles of roads posted over 35 mph
- 1 mile of bicycle boulevards
- 1 mile of cycle track
- 4 miles of buffered bike lanes
- 4,300 bike racks within the City and over 2,000 bike racks downtown
- 25 grade separated crossings. Four overpasses and 21 underpass crossings. Grade-separated crossings are used to move people on bikes and pedestrians over and under barriers like railroad tracks, busy roads, and the freeway.

Davis's bicycle accidents with injury (and fatalities) are high for a city of its size. However, the number of total accidents with injury is also very low compared to cities of comparable size. For

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<sup>44</sup> <https://nacto.org/publication/urban-bikeway-design-guide/intersection-treatments/bike-boxes/>

example: in 2019 there were 60 bicycle accidents with injury and 221 total vehicle injury accidents resulting in 27% of all vehicular accidents involving a bicycle. Redwood City's number is 4.8%, but their number of bicycle commuters is less than 1%. If you look at the percentage of accidents with respect to the biking population for 2019, Davis's percentage is .4% and Redwood City's percentage is 2.4%. Davis's safety statistics are very good, given the number of bicycle riders.

Both Portland and Davis are renowned environments for bicycle riders because they committed early to bicycle infrastructure and consistently improved it over the years. The city government and the school systems actively support bicycle education. Both cities conduct counts to determine bicycle use. They are both advocates of the Vision Zero policy to reduce accidents and fatalities. They use the Bicycle Friendly Community evaluation process to assess their progress towards their bicycle plans and goals.

Disclosure: Portland, beginning in 2020, noted a decline in bicycle commuter percentages. Thinking it was an aberration of the pandemic shutdown, it continued to do annual bike counts. As of 2022, its percentage had gone down to 3.1%. The current theory of why there has been a decline is assumed to be the increase of work from home. Regardless, Portland continues to make improvements to its bicycle infrastructure and safety.

**APPENDIX B: San Mateo County Bicycle and Pedestrian Master Plan List**

<b>Jurisdiction</b>	<b>Year</b>	<b>Name of Report</b>	<b>Link to Report</b>
Atherton	Jul 2014	Town of Atherton Bicycle and Pedestrian Master Plan	<a href="https://www.ci.atherton.ca.us/DocumentCenter/View/1381/Atherton-BPMP_Proposed-Final-July-2014?bidId=">https://www.ci.atherton.ca.us/DocumentCenter/View/1381/Atherton-BPMP_Proposed-Final-July-2014?bidId=</a>
Belmont	Nov 2016	City of Belmont Comprehensive Pedestrian & Bicycle Plan	<a href="https://www.belmont.gov/home/show/publisheddocument/14951/636179086799900000">https://www.belmont.gov/home/show/publisheddocument/14951/636179086799900000</a>
Brisbane	Feb 2017	Brisbane Pedestrian and Bicycle Master Plan	<a href="https://www.brisbaneca.org/sites/default/files/fileattachments/public_works/page/149/bikepedmasterplanappendices.pdf">https://www.brisbaneca.org/sites/default/files/fileattachments/public_works/page/149/bikepedmasterplanappendices.pdf</a>
Burlingame	Dec 2020	City of Burlingame Bicycle and Pedestrian Master Plan	<a href="https://www.burlingame.org/business_detail_T54_R154.php">https://www.burlingame.org/business_detail_T54_R154.php</a>
Colma	Feb 2021	Colma El Camino Real Bicycle and Pedestrian Improvement Plan	<a href="https://www.colma.ca.gov/documents/ecr-improvement-plan/">https://www.colma.ca.gov/documents/ecr-improvement-plan/</a>

<b>Jurisdiction</b>	<b>Year</b>	<b>Name of Report</b>	<b>Link to Report</b>
Daly City	Feb 2020	Walk Bike Daly City; City of Daly City Pedestrian and Bicycle Master Plan 2020	<a href="https://dalycity.org/1106/Daly-City-Pedestrian-and-Bicycle-Master-">https://dalycity.org/1106/Daly-City-Pedestrian-and-Bicycle-Master-</a>
East Palo Alto	Oct 2017	2017 East Palo Alto Bicycle Transportation Plan	<a href="https://www.cityofepa.org/sites/default/files/fileattachments/planning/page/2801/reso_4905_adopting_2017_bicycle_transportation_plan.pdf">https://www.cityofepa.org/sites/default/files/fileattachments/planning/page/2801/reso_4905_adopting_2017_bicycle_transportation_plan.pdf</a>
Half Moon Bay	Sep 2019	City of Half Moon Bay Bicycle and Pedestrian Master Plan	<a href="https://www.half-moon-bay.ca.us/DocumentCenter/View/2243/Bicycle-and-Pedestrian-Master-Plan-Final?bidId=">https://www.half-moon-bay.ca.us/DocumentCenter/View/2243/Bicycle-and-Pedestrian-Master-Plan-Final?bidId=</a>
Menlo Park	Nov 2020	City of Menlo Park Transportation Master Plan	<a href="https://beta.menlopark.org/Government/Departments/Public-Works/Transportation-Division/Bicycling">https://beta.menlopark.org/Government/Departments/Public-Works/Transportation-Division/Bicycling</a>
Millbrae	2021/2022	City of Millbrae Active Transportation Plan	<a href="https://www.ci.millbrae.ca.us/home/showpublisheddocument/25807/637787902014030000">https://www.ci.millbrae.ca.us/home/showpublisheddocument/25807/637787902014030000</a>

<b>Jurisdiction</b>	<b>Year</b>	<b>Name of Report</b>	<b>Link to Report</b>
Pacifica	Feb 2020	City of Pacifica Bicycle & Pedestrian Master Plan	<a href="https://www.cityofpacifica.org/departments/public-works/engineering/bicycle-pedestrian-master-plan">https://www.cityofpacifica.org/departments/public-works/engineering/bicycle-pedestrian-master-plan</a>
Redwood City	July 2018	Redwood City Moves, A Comprehensive Assessment of Transportation with Redwood City	
San Bruno	Jul 2016	City of San Bruno Walk 'n Bike Plan	<a href="https://sanbruno.ca.gov/DocumentCenter/View/1733/Adopted-San-Bruno-Walk-n-Bike-Plan-PDF">https://sanbruno.ca.gov/DocumentCenter/View/1733/Adopted-San-Bruno-Walk-n-Bike-Plan-PDF</a>
San Carlos	Jun 2020	City of San Carlos Bicycle and Pedestrian Master Plan Final	<a href="https://www.cityofsancarlos.org/home/showpublisheddocument/8139/638155282314370000">https://www.cityofsancarlos.org/home/showpublisheddocument/8139/638155282314370000</a>
San Mateo	Apr 2020	San Mateo Bicycle Master Plan April 2020 Final	<a href="https://www.cityofsanmateo.org/DocumentCenter/View/85445/2020-Bike-Master-Plan_Final_Updated-62021?bidId=">https://www.cityofsanmateo.org/DocumentCenter/View/85445/2020-Bike-Master-Plan_Final_Updated-62021?bidId=</a>

<b>Jurisdiction</b>	<b>Year</b>	<b>Name of Report</b>	<b>Link to Report</b>
South San Francisco	Mar 2022	Active South City: South San Francisco's Bicycle and Pedestrian Master Plan Draft	<a href="https://activesouthcity.com/wp-content/uploads/2022/03/SSF-ActiveSouthCity_PublicDraft_31March2022_plan_only.pdf">https://activesouthcity.com/wp-content/uploads/2022/03/SSF-ActiveSouthCity_PublicDraft_31March2022_plan_only.pdf</a>
San Mateo County	2021	2021 C/CAG San Mateo County Comprehensive Bicycle and Pedestrian Plan	<a href="https://ccag.ca.gov/wp-content/uploads/2021/06/San-Mateo-County-Comprehensive-Bicycle-and-Pedestrian-Plan-Update-Final-Plan.pdf">https://ccag.ca.gov/wp-content/uploads/2021/06/San-Mateo-County-Comprehensive-Bicycle-and-Pedestrian-Plan-Update-Final-Plan.pdf</a>

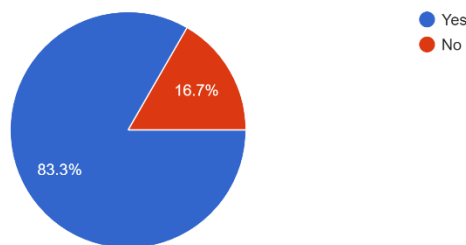
## APPENDIX C: Survey Questions and Results

This is a summary of the responses:

1. Cities and law enforcement do not track bicycle and eBike accident statistics separately; in fact, most respondents did not track eBike specific data at all (94%).
2. Complaints on Class I Bicycle Roadways include speeding and not yielding to pedestrians.
3. Complaints on Class II and III Bicycle Roadways include speeding, improper signaling, mixed use of bikes/eBikes and violation of the 3 ft. Rule.
4. Of 361 citations issued, only 11 were specifically for eBikes. It is impossible to know if there were more eBikes in violation as there is no requirement to ID the type of bicycle when filling out the form.
5. Class 3 eBikes are more powerful machines and have specific laws regarding usage. Only 50% of the respondents were enforcing the Class 3 eBike laws.
6. Complaints and incidents regarding bicycles (from riders or others) come mostly through police reports, but also from input to City Halls, Redwood City’s “app”, city planning, parks and recreation.
7. 1/3 respondents said there has been an increase in complaints regarding bicycles in the last three years (speeding, underage use, reckless behavior, vehicular code).
8. 2/3 of respondents said there had not been an increase in complaints regarding eBikes and 25% said they didn’t know.
9. Civilian bicycle complaints are generally not available to the public (over 50% of respondents).
10. 44% of respondents said they don’t provide bicycle safety education.
11. Enforcement of bicycle-related law is done where appropriate, with discretionary authority. Effort is made to educate at the time of the infraction. Additional enforcement is budget driven.
12. Future planning for the regulation of bicycles and eBikes varies greatly in the responses (see Question II-16 in Appendix A).

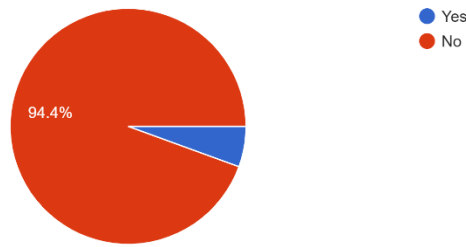
List of responses to questions (on the next page):

I-1: Do you track Bicycle accident statistics?  
18 responses



I-2: Do you maintain eBike specific statistics with regard to accidents?

18 responses

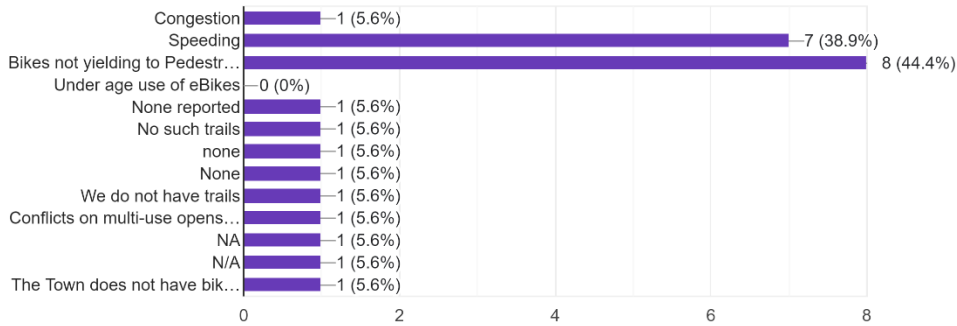


**Number of bicycle accidents in 2022? 212**

**Number of bicycle accidents in 2020 to the end of 2021? 307**

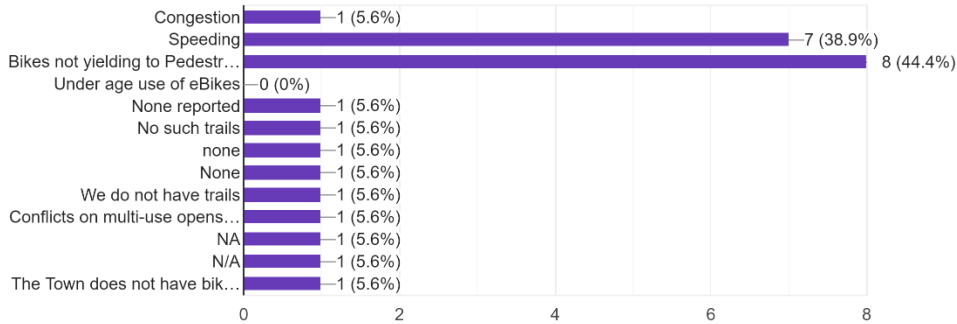
I-5: What are the safety issues on Bike/Ped Only Trails? Pick all that apply.

18 responses



I-5: What are the safety issues on Bike/Ped Only Trails? Pick all that apply.

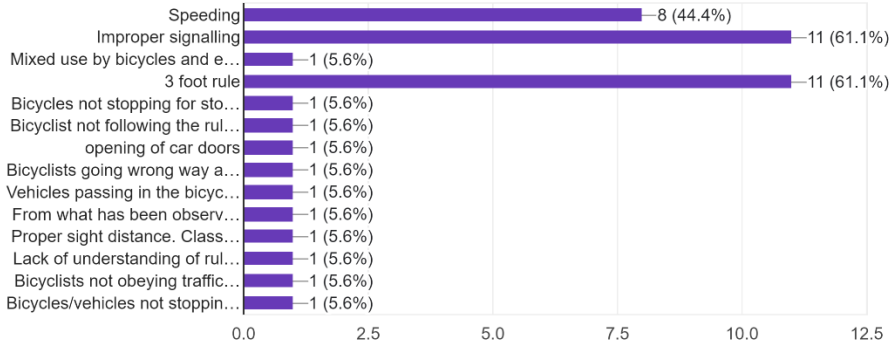
18 responses





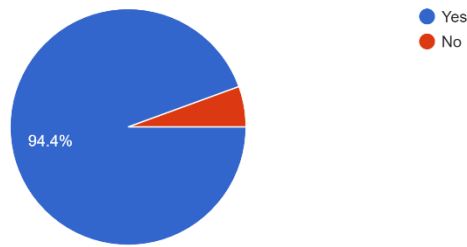
I-6: What are the safety issues for Bicycle Lanes shared with Vehicular Traffic? Pick all that apply.

18 responses



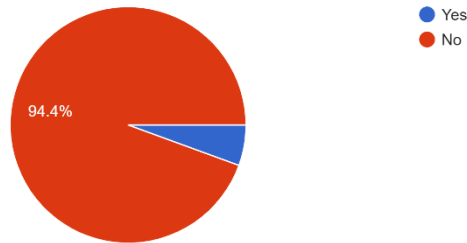
II-1: Are you aware of the laws governing Bicycles and eBikes?

18 responses



II-2: Do you have city codes governing eBikes only?

18 responses

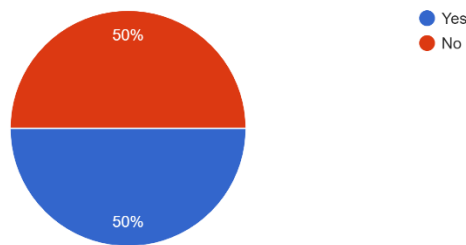


**How many Bicycle citations were issued in the last year? 361**

**How many eBike Citations were issued in the last year? 0 [Comments: this information is not tracked]**

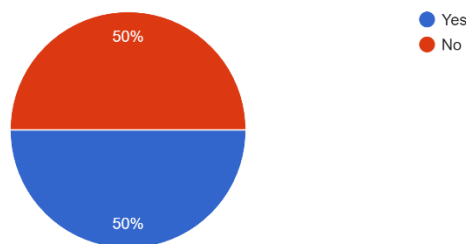
II-5: Currently, Class 3 eBikes are not allowed on Ped/Bike trails. Are you enforcing this law?

18 responses



II-6: Are you enforcing the age limit on Class 3 eBike usage (age 16 or older)?

18 responses



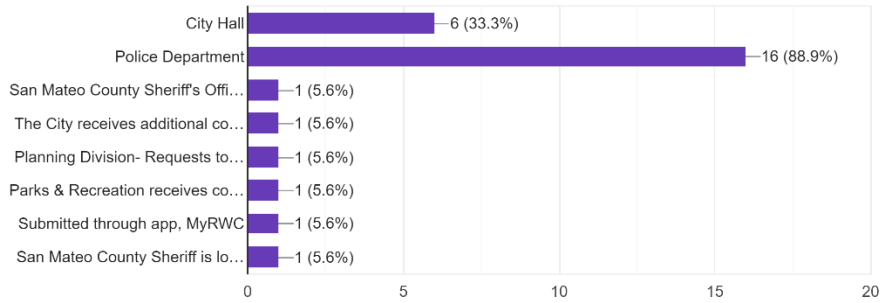
### **If you are enforcing bicycle/eBike law, how is it accomplished?**

- Nothing too specific. Enforcement during routine patrol if violations are witnessed. The PD has done a few details and targeted patrols in our downtown area specifically looking for bicycle violations (riding on sidewalks, helmet violations, reckless behavior, etc.).
- The Police Department enforces all laws as appropriate and with necessary and legal discretionary authority.
- Education and Enforcement
- All officers are trained to enforce Vehicle Code and Municipal Code law on bicycles and eBikes.
- On view and by complaint.
- On view and calls for service which result in Education or Enforcement.
- Traffic enforcement resulting in citations and/or verbal warnings/ education to the public.
- Through proactive patrols, directed enforcement and calls for service.
- Most bicycle stops are made for violations occurring on roadways, not on trails or sidewalks. Most bike stops result in education and not citations as evidenced by our low citation numbers.
- Primarily through education and warnings.
- We have not enforced the Bicycle/eBike law because we have not received any comments to date that have triggered the Police Department to enforce.

- By Sheriff patrol.
- We can't enforce much because of limitations in light of funding and staffing needs

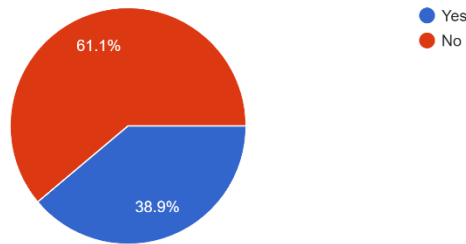
II-8: How are complaints regarding Bicycles/eBikes/eScooters logged in your city/town? Check all that apply.

18 responses



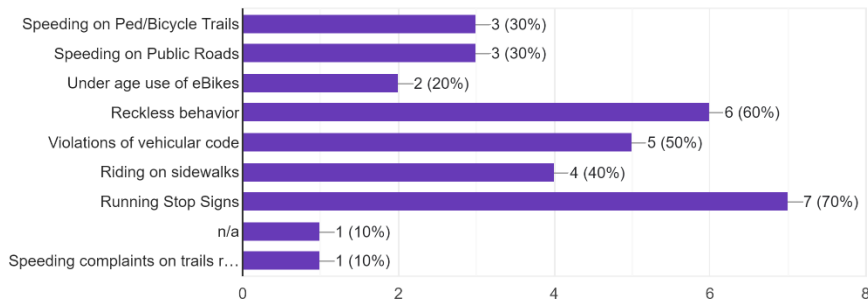
II-9: Has there been an increase in complaints regarding Bicycles in the last three years?

18 responses



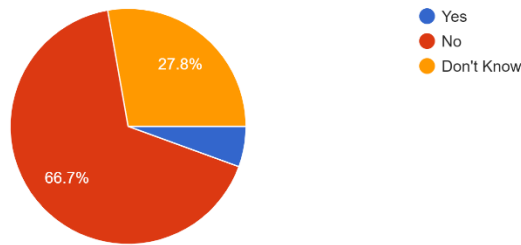
II-10: If yes, what kind of complaints about Bicycles? Check all that apply.

10 responses



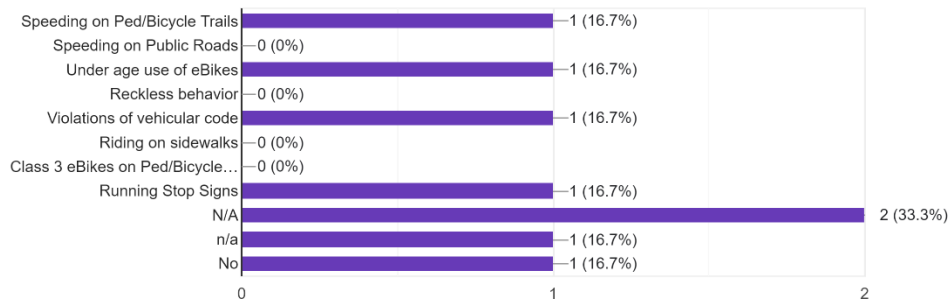
II-11: Has there been an increase in complaints regarding eBikes in the last three years?

18 responses



II-12: If yes, what kind of complaints about eBikes? Check all that apply.

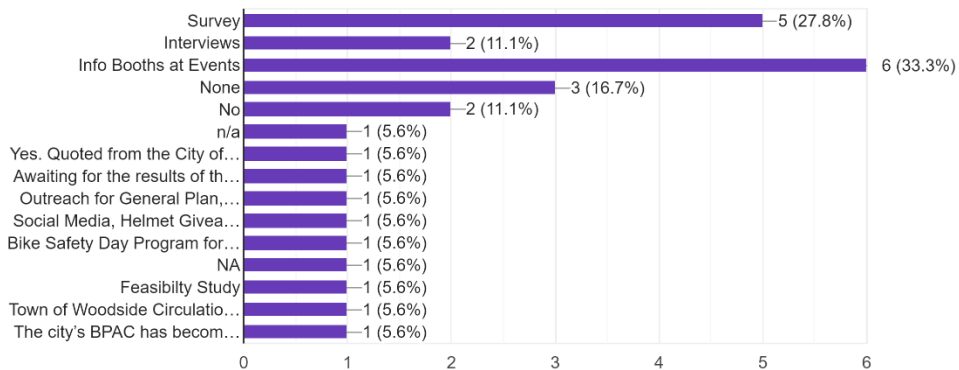
6 responses



II-13: Have you done anything to solicit information from citizens regarding bicycle/eBike safety?

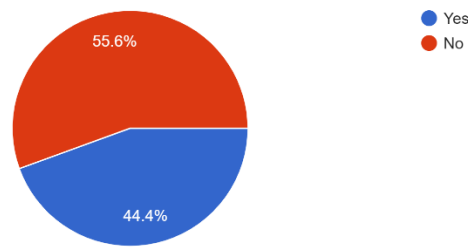
Check all that apply.

18 responses



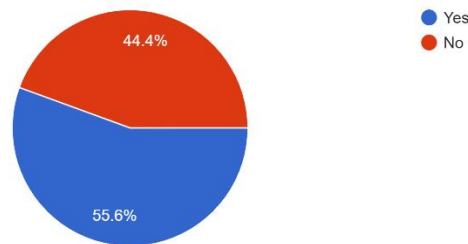
II-14: Is documentation relative to citizen complaints available?

18 responses



II-15: Do you provide Bicycle and eBike Safety Education?

18 responses



### **Does your city/town have any future plans regarding the regulation of bicycles and eBikes?**

- Not at this time.
- Yes. Additional and improved bike lanes.
- Policies in the newly adopted General Plan supporting alternative modes of transportation, including bikes.
- Awaiting the results of the County-wide eBike pilot to determine best practices to implement.
- Not at this time.
- Not at this time. There have not been complaints/concerns regarding eBikes.
- Not at this time.
- Not that I am aware of.
- No, unless we start receiving complaints.
- Yes, The City of South San Francisco's Bicycle and Pedestrian Master Plan.
- No
- As the Town begins to understand various micro-mobility issues going forward, eBikes being part of that growth pattern, we will plan to prepare plans and outreach material to help educate the bike populations on eBike protocols and safety.
- With the growing development, more bike facilities are being provided for the general public. Public outreach and programs to help educate both current/new users are currently

being implemented citywide. Buildout of Bike & Pedestrian master plan is underway. Alameda de Las Pulgas and Ralston 4 designs are underway. Creation of a transportation master plan is also underway. Parks & Recreation Department is developing a Master Plan that also includes implementation of eBikes policies on open space trails.

- Yes
- Nothing specific regulatory changes planned at this time.
- City is currently drafting ordinance language to address the increasing number of electric mobility devices that are present on trails and paths. Many conversations have occurred at BPAC and council (among other committees and commissions) and will continue in 2024.