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# 1. PLAN PURPOSE

The Fixing America's Surface Transportation (FAST) Act authorizes surface transportation funding for federal fiscal years 2016–2020.<sup>1</sup> The FAST Act does not require an agency to have an adopted bike plan. Federal law does require long-range transportation plans; HCAOG, as a nonmetropolitan transportation planning agency, must have a Regional Transportation Plan (RTP). Federal guidance only specifies that the RTP should consider how to “increase the safety...and security of the transportation system for motorized and non-motorized users;...”<sup>2</sup> In search of more detail, we can borrow from the federal guidance for metropolitan transportation plans (Sec. 450.324(b)): “The transportation plan shall include both long-range and short-range strategies/actions that provide for the development of an integrated multimodal transportation system (including accessible pedestrian walkways and bicycle transportation facilities),” but it is still broad.

A person on a bicycle:  
“No other living thing  
can expend so little  
energy for so much  
self-powered travel.”

—Cycling Science

At the State level, neither has the California Department of Transportation set rules requiring bike plans for California Active Transportation Program (ATP) funds. Even so, HCAOG is updating the *Regional Bicycle Plan* from 2012 because we believe it is still valuable to do so. As HCAOG’s RTP, VROOM, also attests, increasing the bike mode share (and all active transportation) is one of the region’s driving transportation goals.

This *Humboldt Regional Bicycle Plan* is foremost a regional plan, intended primarily to facilitate projects and programs that will help build a bikeway system that makes bicycling throughout Humboldt County a safe, convenient, and practical means of transportation for all residents and visitors. Priority infrastructure projects will link adjoining jurisdictions’ bicycle routes and thereby build a regional bicycle network. The Bike Plan’s recommended projects and programs have the potential to considerably increase the number of bicycle trips in Humboldt County.

## SERVING A LARGER VISION

The purpose of the *Humboldt Regional Bicycle Plan* is to advance the development of a fully integrated active transportation (bicycling, walking, skating, and transit) network. Some



<sup>1</sup> Signed into law by President Obama on December 4, 2015.

<sup>2</sup> 23 CFR 450.202 (published in the May 27, 2016 Federal Register.)

## Humboldt REGIONAL BIKE PLAN - Update 2017

### DRAFT for Public Review & Comment

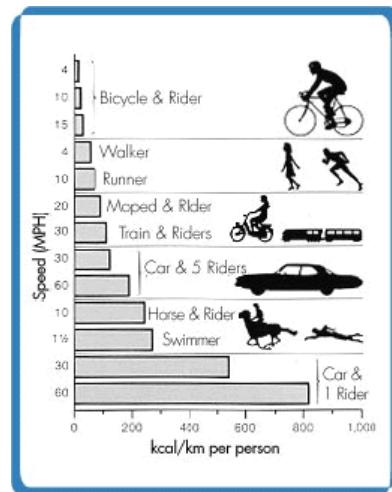
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of the important benefits of building for “active travel” are: to create safer, more livable communities; to promote physical activity and health; and to build a low-carbon economy. Bicycling is integral to active transportation, and a well-connected, user-friendly, safe, and convenient bicycling network is an important component for livable communities. By livable communities we mean places that are safe and comfortable to live in, that invite people to stroll, shop, recreate, socialize, and share public spaces with others, that provide people opportunities to prosper on a scale that is fortifying and sustainable for the whole community.

The *Humboldt Regional Bicycle Plan* (Bike Plan) takes measurable steps toward the goal of improving every citizen’s quality of life, creating a more sustainable urban, rural and natural environment, and reducing traffic congestion, vehicle exhaust emissions, noise, and fuel consumption. This is increasingly important as the County endeavors to grow its local economy, and support a growing population’s demands for new housing, businesses, and roads in undeveloped areas. Developing an attractive and inviting regional bicycle system is a key element in preserving Humboldt County as a place where people want to live, learn, work, and visit.

It has long been noted that the bicycle is the most efficient mode of human travel. For the energy input, bicycling is five time more efficient than walking, and 56 times more efficient than driving. On 100 calories, a person can go three miles on a bike, but a car can only go 280 feet (not even making it to the end zone of a football field!).<sup>3</sup>

About 40 percent of all U.S. trips are shorter than two miles.<sup>4</sup> An able-bodied person can bike one mile, unhurriedly, in five to six minutes. For trips ranging from one to three miles, bicycling is overall the most efficient, economic, and sustainable mode of travel. And in many circumstances, urban or rural, short trips by bike can be the most convenient. But conditions have to be right. First and foremost, the landscape has to be built with bicycling (and walking) in mind. That is, land uses, roadways, and other infrastructure have to be designed to weave active transportation into the fabric of the transportation network. Having an up-to-date bicycle plan works towards this.



## BIKE PLAN OUTCOMES

The presence of complete networks is fundamental to achieving...improved levels of safety, activity, and equity.  
—FHWA Strategic Agenda, 2016

By developing and implementing the *Humboldt Regional Bicycle Plan* (Bike Plan), HCAOG endeavors to go beyond the minimum requirements...and proactively...provide convenient, safe, and context-sensitive facilities that foster increased use by bicyclists and pedestrians of all ages and abilities, and utilize universal design characteristics when appropriate. Transportation programs and facilities should accommodate people of all ages and

<sup>3</sup> Human Power, [www.exploratorium.edu/cycling/humanpower1.html](http://www.exploratorium.edu/cycling/humanpower1.html)

<sup>4</sup> 2009 National Household Travel Survey ([www.pedbikeinfo.org/data/factsheet\\_general.cfm](http://www.pedbikeinfo.org/data/factsheet_general.cfm)).

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abilities, including people too young to drive, people who cannot drive, and people who choose not to drive. (U.S. DOT 2010).

The U.S. DOT articulates some of positive outcomes of active transportation: “...the numerous individual and community benefits that walking and bicycling provide—including health, safety, environmental, transportation, and quality of life” (U.S. DOT 2010). We expect many benefits to stem from the implementation of the Bike Plan over time:

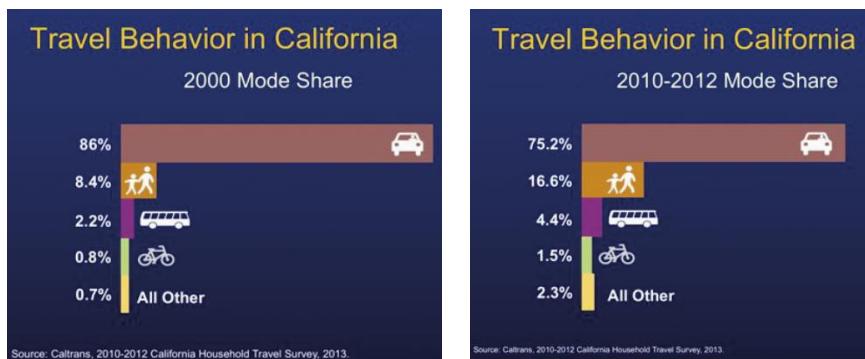
### ❖ REACHING MODE-SHARE GOALS

Increasing active transportation and reducing per capita motorized travel are national and state goals. The national goal is to “Increase,” from a 20 percent share in 2009, “the percentage of short trips represented by bicycling and walking to 30 percent by the year 2025” (FHWA 2016b). The FHWA defines short bicycle trips as five miles or less, and short walking trips as one mile or less.

California has set a goal of tripling bicycle trips and doubling walking and transit trips by the year 2020 (from California’s 2012 baseline levels) (Caltrans 2015). California’s active transportation goals play a part in also meeting the State’s goals to reduce greenhouse gas emissions to 40% below 1990 levels by 2030 (per Governor Brown’s Executive Order B-30-15) and to 80% below 1990 levels by the year 2050 (per AB 32).

By identifying and providing needed facilities and services, the Bike Plan will help meet the existing demand for added and enhanced bicycle routes and facilities around the county. Current riders want more facilities and “latent riders” would ride if they had more access to comfortable bike routes, safety education, encouragement, and opportunities to gain riding experience.

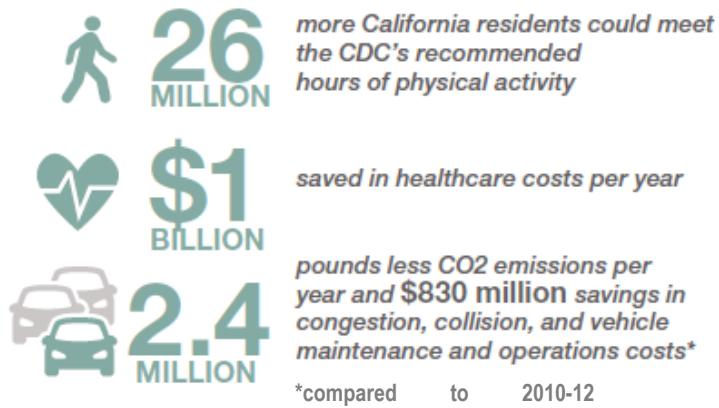
Reaching the goals of the Bike Plan will also help build a new era of mutual respect between motorists and people on bicycle or on foot. Bike Plan objectives include outreach efforts to educate the general public on the rights of bicyclists, and on the importance of sharing the road and deferring to bicyclists when needed; similarly, efforts will call on bicyclists to police themselves and spread the word on the importance of obeying rules of the road.



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Investment in active transportation provides many benefits...

**IF CALIFORNIA MEETS ITS 2020 TARGETS FOR WALKING AND BICYCLING**



Source: Caltrans

## ❖ SAFETY

Better bicycling networks save lives. Bicycle programs reduce the injury and fatality rate for bicyclists through design standards and guidelines, education, and enforcement. A well-connected bicycle transportation network reduces the public's fear of traveling by bicycle. Studies have shown that when bicycling rates increase, injury rates fall:

The principle of "safety in numbers" has been observed widely. Studies have shown that bicycling safety is greater in countries and cities with higher levels of bicycling, and that bicycling injury rates fall as levels of bicycling increase.<sup>5</sup>

and

A past belief has been that increases in numbers of cyclists will lead to proportionate increases in numbers of accidents. One study that evaluated this assumption in several population data sets (from California, Denmark, Europe, the United Kingdom, and the Netherlands) showed that there was "safety in numbers"; that is, there was an inverse relationship between an increasing number of cyclists and the likelihood of being struck by a motorist.<sup>6</sup>

## ❖ HEALTH

Implementing the Bike Plan will improve public health by providing more enticing opportunities for walking and bicycling, thereby promoting more active lifestyles. This will also help further national public health goals:

"Advancing the development of safe, accessible, and convenient bicycling and walking networks plays a fundamental role in achieving national public health goals to reduce illnesses related to sedentary lifestyles, as well as national policies to foster equitable access to Ladders of Opportunity for everyone" (FHWA 2016b).

<sup>5</sup> Active Living Research, 2016.

<sup>6</sup> P.L. Jacobsen, 2003.

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## ❖ **SAFE ROUTES TO SCHOOL & TRANSIT**

The Bike Plan promotes and supports Safe Routes to School and Safe Routes to Transit by implementing infrastructure projects and non-infrastructure programs that employ the “5 E’s”—engineering, education, encouragement, enforcement, and equity. “Areas with more amenities for biking and walking, such as sidewalks, bicycle lanes, or paths are associated with more active commuting to school.”<sup>7</sup>

## ❖ **SUSTAINABLE LAND USE & ENVIRONMENTAL QUALITY**

Multi-modal design, such as complete streets, builds people-friendly streets, paths, and trails that are accessible to everyone, supporting sustainable community development. Land uses planned and developed at a human scale accommodate walking and bicycling for short trips. Increasing rates of non-motorized travel means less: traffic congestion, vehicle exhaust emissions, noise, and energy consumption, which helps preserve the environmental quality of Humboldt County.

## ❖ **EQUITY**

An equitable transportation system is one that provides affordable and reliable mobility to jobs, services, and social opportunities for all. Equity focuses on providing mobility options to populations that generally have less access to private automobiles, such as people in neighborhoods with high proportions of low-incomes, ethnic minorities, seniors, people with disabilities, people with limited English proficiency, as well as youth. A transportation network serves people more equitably when it has bicycle and pedestrian networks that are well-connected to the broader network, as well as to the transit system.

In 1969, nearly 50% of all children in the U.S. (and nearly 90% of those within a mile of school) walked or biked to school. Today, fewer than 15% do. During the morning commute, driving to school represents 10-14% of traffic on the road.

— [www.saferoutespartnership.org/healthy-communities](http://www.saferoutespartnership.org/healthy-communities), 2017

Research seeks to determine what factors effectively increase people's mobility choices. One study found the strongest predictor on increasing bicycle commuting was a higher ratio of bike lanes. “Specifically, they found that for every 1-mile increase in bicycle lanes per square mile, there was a 1% rise in the total number of bicycle commuters” (Dill and Carr cited in Pedroso et al 2016).

## **PLANNING APPROACH**

This *Humboldt Regional Bicycle Plan* is foremost a regional plan, intended primarily to facilitate projects and programs that will help build a bikeway system that makes bicycling throughout Humboldt County a safe, convenient, and practical means of transportation for all residents and visitors. Priority infrastructure projects will link adjoining jurisdictions' bicycle routes and thereby build a regional bicycle network. The Bike Plan's recommended projects and programs have the potential to considerably increase the number of bicycle trips in Humboldt County. In Chapter 4, section 4.1 describes the regional priority bicycle projects and programs, which are:

- I. Regional Bicycle Parking Program
- II. Regional Active Transportation Education & Outreach Program

<sup>7</sup> *ibid.*

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- III. Regional Bicycle Guide & Map
- IV. Humboldt Bay Trail
- V. Regional Bicycle Facility Projects by Jurisdiction

The primary countywide system calls for implementing approximately 515 miles {TBD} of bikeways to connect all cities and unincorporated areas in Humboldt, as well as adjacent counties. The estimated cost is approximately \$27.26-million {TBD} over the Bike Plan's 20-year life (2017/18 to 2037/38). The *Bike Plan* as updated in 2017 recommends implementing five priority regional projects in the short-term (five fiscal years, 2017 through 2021/22).

Overall, this is a long-range plan with a 20-year planning horizon. The projects identified as regional priorities are for securing funding for and/or implementing within the next five years. HCAOG performs an annual progress report to monitor implementation of the Bike Plan.

As part of updating the Bike Plan, HCAOG staff, committees, and board members review the state of the regional bicycle system and reassess system needs as well as opportunities for funding, partnerships, and collaboration. Active input from our local communities helps HCAOG stay informed about what is getting better, what is getting worse, and what the greater bicycle community wants done first. Proposed bicycle projects are then ranked. The top-ranked regional bicycle projects become the Bike Plan's priority projects. During the Bike Plan's five-year planning term, those identified regional priority projects will have priority for potential State and Federal funding sources that are programmed through HCAOG.

**The health benefits of active transportation exceed its risks of injury and exposure to air pollution.**

— Active Living Research, 2016

In sections 4.2 through 4.10 of Chapter 4, the Bike Plan also identifies projects that HCAOG member and committee entities have prioritized for their respective jurisdictions/governments. Individual agencies have the opportunity to adopt the Bike Plan and pursue financing and project implementation within their respective jurisdictions. HCAOG member agencies will achieve the Bike Plan's goals through individual and combined actions. One of the intended outcomes of the Bike Plan is to improve interagency coordination. Implementing the Bike Plan should facilitate local, State, tribal and other entities to coordinate developing regional non-motorized transportation facilities, including local links that feed into the regional network. The Bike Plan also recommends to local planners and developers guidelines for bicycle improvements and standards.

The Bike Plan does not diminish any jurisdiction's option or ability to separately develop and approve its own bicycle plan. Any jurisdiction may utilize some or all relevant portions of this Bike Plan for its own bicycle planning and financing. They are also free to adopt and fund local transportation projects that are not included in this Bike Plan.

Lastly, the adopted *Regional Bicycle Plan* helps maximize our regional and local eligibility and readiness for funding opportunities. The Bike Plan reflects proactive planning, coordinating, and prioritizing of projects to build and maintain an integrated, multi-modal transportation network region-wide. A current plan, developed with community input, helps equip HCAOG and its member agencies to compete successfully for State and federal funding.

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## **SUPPORTING PLANS & POLICIES**

Throughout Humboldt County, communities have defined goals and set plans for building a stronger bicycle system and becoming more “bicycle-friendly,” both locally and regionally. Below, we summarize the long-range regional State, and federal policies and plans that support the Bike Plan’s goals and objectives. The Bike Plan is coordinated and consistent with local and regional transportation, air quality, or energy conservation plans. (*Note: For a more comprehensive survey of regional and local plans that support bicycle and pedestrian trails and supporting facilities, refer to the Humboldt County Regional Trails Master Plan (HCAOG, 2010).*)

Note that studies and plans for proposed trails are summarized in Chapter 4.

## **REGIONAL BIKE PLANNING**

### ***Regional Transportation Plan Update (HCAOG, 2017)***

The *Regional Transportation Plan: Variety in Rural Options of Mobility (VRROOM)* is HCAOG’s long-range plan for developing and maintaining the regional transportation system over the next 20 to 25 years. The “Complete Streets Element,” “Commuter Trails Element,” and “Public Transit Element” identify policies and projects that support bicycle transportation and encourage intermodal transportation connections. Moreover, the *Regional Bicycle Plan* is part of VRROOM (incorporated by reference).

### ***Humboldt County Regional Trails Master Plan (HCAOG, 2010)***

The *Regional Trails Master Plan* takes a comprehensive approach to planning non-motorized transportation with connectivity between communities. The plan combines all “active transportation” modes that may be served by a regional trail network—bicycle, pedestrian, and equestrian travel—and considers commuting, utilitarian, and recreational trips.

### ***Humboldt People Powered Pathways (RCAA, 2009)***

*Humboldt People Powered Pathways (HP3)* is a vision “to get more people traveling by healthy, environmentally beneficial means... (b)y connecting pedestrian, bicycle and multi-use trail routes and establishing collaborative education and encouragement campaigns.” The HP3 vision was crafted by a coalition of the County of Humboldt, cities, tribes, Caltrans, and community organizations, and the report was produced by the Natural Resource Services Division of RCAA. The HP3 coalition, with the Humboldt County Department of Public Works serving as the lead agency, submitted a proposal for \$50 million in federal transportation funding in 2010 to implement HP3. HP3’s target is to increase non-motorized transportation in Humboldt by at least 10% in seven years.

### ***Regional Pedestrian Needs Assessment Study (HCAOG, 2008)***

The study focuses on pedestrian improvements, and identifies several multi-use trails that will serve as local or regional routes that connect to and expand the regional bikeway.

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### ***Humboldt Bay Area Bicycle Use Study (1999)***

To date, the *Humboldt Bay Area Bicycle Use Study* has been the largest undertaking to collect bicycle data in the Humboldt Bay Area. Over the course of one year, volunteers collected 791 hours of data on bicycle ridership in Eureka, Arcata, and McKinleyville, including the Pacific Coast Bike Route, the Hammond Trail, and other popular bike routes.

### **General Plans & Community Plans**

In addition to the plans above, which expressly address bicycling or active transportation, there are more general plans that include policies and/or projects for bicycling. For instance, in all the cities' and in the County's General Plans, such policies included in the "Circulation Element" (or "Transportation Element") chapter. Similarly, the *McKinleyville Community Plan* (2002) includes a "Circulation Plan" that includes bicycle policies such as design standards for new roadway and

Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems.

— U.S. DOT Policy Statement on Bicycle & Pedestrian Accommodation, 2010

intersections to incorporate bikeways; and favoring funding priorities for safe pedestrian and bicycle access to schools. The *McKinleyville Parks and Recreation Plan* (prepared by McKinleyville Community Services District in 2008) has policies to support non-motorized transportation facilities, and proposes trail facilities for trails under their jurisdiction as well as the County of Humboldt's. The *Willow Creek Community Action Plan* (2003) identifies building bicycle trails as one strategy to increase tourism in the area. The *Manila Community Transportation Plan* (Manila CSD, Phase I (2003); Phase II (2005)) documents the community's vision for improving bicycle safety and access. Two strategies identified were to place "Share the Road" signs along Highway 255, and to develop a multi-use trail utilizing the NCRA rail corridor through Manila.

### ***Particulate Matter (PM10) Attainment Plan (NCUAQMD, 1995)***

The North Coast Unified Air Quality Management District—encompassing Humboldt, Del Norte, and Trinity Counties—is classified as a non-attainment area for particulate matter under 10 microns (PM10). Under the California Clean Air Act, air quality districts must develop control measures to achieve and maintain ambient air quality standards. NCUAQMD has identified control measures such as programs to accommodate pedestrian and bicycle use and land use development practices that encourage walking to more destinations and reducing automobile use.

## **NEIGHBORING COUNTIES**

The *Del Norte County and Crescent City Bicycle Facilities Plan Update* (2010) and the *Mendocino County Regional Bikeway Plan* (2012) both identify only the Pacific Coast Bike Route on Highway 101 for connecting to Humboldt County by bicycle. The *Trinity County Bikeways Master Plan* (2015) proposes Class III bicycle routes on Highway 299, Highway 36, and Zenia Bluff Road to connect Humboldt County and Trinity County. The Trinity County plan also recommends "Share the Road" signage along these routes to increase awareness of and respect for bicyclists.

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## **FEDERAL AND STATE PLANS & POLICIES**

## *Policies on Greenhouse Gas Emissions*

California was the first state in the nation to adopt an enforceable statewide emission target, with the passage of the **Global Warming Solutions Act of 2006** (California Assembly Bill 32) (since then at least 20 other states have passed targets and goals). AB 32 requires California to reduce greenhouse gas emissions to 1990 levels by the year 2020, and to 20% of 1990 levels by the year 2050. The California Air Resources Board (CARB) is charged with creating the mechanisms for reaching this goal. Improving bicycling transportation infrastructure is a key strategy to reducing the State's greenhouse gas emissions.

The CARB's "Climate Change Scoping Plan" (2008) states,

The key to addressing the (vehicle miles traveled) challenge is providing people with more choices through diversified land use patterns, greater access to alternative forms of transportation including transit, biking and walking, and promoting development patterns where people can live, work and play without having to drive great distances.

California's Sustainable Communities and Climate Protection

**Act of 2008** (Senate Bill 375) is part of AB 32's implementation strategy, aims to reduce greenhouse gas (GHG) emissions by discouraging sprawl development, fostering land use patterns that reduce the need to drive, and by promoting alternative transportation options.

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In August 2008, the Senate amended the bill to apply only to federally-designated metropolitan planning areas, thus eliminating some small counties. Therefore, the bill only requires California's 18 MPOs to prepare a "sustainable communities strategy" to reduce vehicle miles traveled (VMT) in their respective regions, and to demonstrate ability to attain Air Resource Board targets.

Governor Brown establishes a mid-range goal to meet before 2040 with the signing of **Executive Order B-30-15**. It sets the State a year 2030 goal to reduce greenhouse gas emissions to 40% below 1990 levels. One of Governor Brown's key strategies to meet the 2040 target is to reduce petroleum use in vehicles by fifty percent.

## *Complete Streets Policies & Plans*

## **California Complete Streets Act of 2008 (California Assembly Bill 1358)**

Per AB 1358 (Leno), when a city or county is substantively revising the circulation element of the general plan, the respective legislative body is required to modify the circulation element to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, in a manner that is suitable to the rural, suburban, or urban context of the general plan. “All users” is defined as motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation. By requiring new duties of local officials, this bill would impose a state-mandated local program.

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### Complete Streets—Integrating the Transportation System (Caltrans, 2014)

Deputy Directive 64-R2, originally passed in 2001 and renewed in October 2014, directs Caltrans staff to implement complete streets. The directive addresses bicycle, pedestrian and transit modes, energy efficiency, climate change, and “context sensitive solutions.” The policy reads, in part:

The (California Department of Transportation) views all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in California, recognizes bicycle, pedestrian, and transit modes as integral elements of the transportation system.

The Department develops integrated multimodal projects in balance with community goals, plans, and values. Addressing safety and mobility needs of bicyclists, pedestrians, and transit users in all projects, regardless of funding, is implicit in these objectives. Bicycle, pedestrian, and transit travel is facilitated by creating “complete streets” beginning early in system planning and continuing through project delivery and maintenance and operations.

Following Caltrans’ DD-64, the State legislature passed **Assembly Concurrent Resolution No. 211** (Nation, 2002), which promotes “integrating walking and biking into transportation infrastructure.” The resolution encourages all cities and counties to implement the policies of Caltrans DD-64 and the U.S. DOT design guidance document when building local transportation infrastructure.

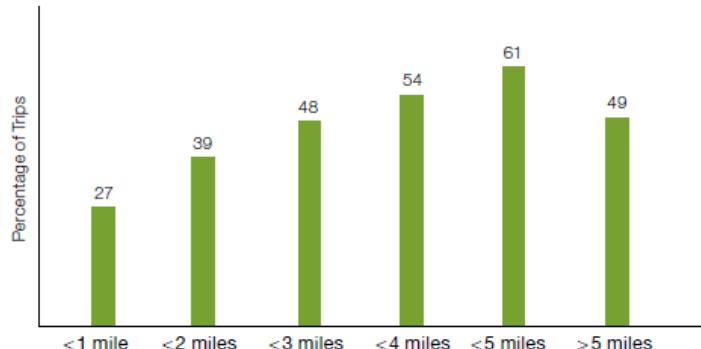
Caltrans released its ***Complete Streets Implementation Action Plan 2.0*** (CSIAP 2.0) in November 2014. The “2.0” update added 109 action items for Caltrans to further integrate complete streets into its projects delivery. Caltrans treats the Action Plan as a living document, monitoring and reporting on action items twice yearly, and adding new activities through an Action Item Addendum.

### Active Transportation Planning

The Federal Highway Administration, with the adoption of the **“Strategic Agenda for Pedestrian & Bicycle Transportation”** in September 2016, adopted these national goals for active transportation:

- ◆ By the year 2025, increase the percentage of short trips made by bicycling and walking to 30 percent. This will achieve 50 percent increase over the 2009 rate of 20 percent. Short trips are defined as trips five miles or less for bicyclists and one mile or less for pedestrians.
- ◆ In 15 years, reduce pedestrian and bicycle fatalities and serious injuries by 80 percent
- ◆ In the next 20 to 30 years, reduce pedestrian and bicycle fatalities and serious injuries to zero.

**FIGURE 2 Most Daily Trips in U.S. Are Within Easy Walking or Biking Distance<sup>3</sup>**



Source: Active Living Research 2016 (data from 2009 National Household Travel Survey)

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The federal Department of Transportation provided the “U.S. DOT Policy Statement on Bicycle and Pedestrian Accommodation Regulations and Recommendations” (March 2010) to “reflect the Department’s support and encouragement for transportation agencies and local communities to develop fully integrated active transportation networks.” It states,

The DOT policy is to incorporate safe and convenient walking and bicycling facilities into transportation projects. Every transportation agency, including DOT, has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. Because of the numerous individual and community benefits that walking and bicycling provide—including health, safety, environmental, transportation, and quality of life—transportation agencies are encouraged to go beyond minimum standards to provide safe and convenient facilities for these modes.

The DOT’s policy encourages State and local governments and other stakeholders (professional associations, community organizations, public transportation agencies) to adopt similar policy statements to reflect “their commitment to accommodating bicyclists and pedestrians as an integral element of the transportation system.” The policy recommends actions for creating safe, sustainable, convenient bicycling and walking networks.

The **U.S. Bicycle Commuter Act of 2008** added bicycle commuting to the list of qualified transportation fringe (QTF) benefits, or reimbursements, allowed by the Internal Revenue Service Code. The National Indian Gaming Commission also began offering the bike subsidy. Under the Act, employers may voluntarily reimburse employees tax free, for allowable expenses: purchase, maintenance, repair, and storage expenses related to bicycle commuting.

The legislation allows \$20 bike benefit per month, much less than the \$130 pre-tax income benefit allowed for mass transit, and smaller still compared to the \$250 per month subsidy made available for qualified car parking. Employees may be reimbursed for only one type of QTF in the same month. “The total anticipated cost of the bicycle commuter provision, estimated by the Joint Committee on Taxation, is \$1 million per year, compared to an annual cost of \$4.5 billion for parking and transit benefits,” according to the National Center for Bicycling and Walking ([www.bikewalk.org/bca.php](http://www.bikewalk.org/bca.php)).

#### Economic Benefits

The cost of owning and operating a car, currently estimated at \$10,374<sup>1</sup> per year, can account for almost 19 percent<sup>2</sup> of a typical household’s income. Compare that with the \$308<sup>2</sup> yearly operating cost of owning a bicycle, or essentially free travel by foot, and it is clear that walking and bicycling can provide options for those who would like to save money.

<sup>1</sup> Your Driving Costs, AAA Exchange.

<sup>2</sup> League of American Bicyclists

The **Caltrans Strategic Management Plan 2015-2020** (Caltrans 2015) has as one of its goals “Sustainability, Livability and Economy.” Performance target for this goal are to, by 2020:

- Triple bicycle mode share in California;
- Double pedestrian mode share in California; and
- Double transit mode share in California (using the 2010-12 California Household Travel Survey data as baseline).

The **California Transportation Plan 2040** (adopted in 2016) is the State’s long-range transportation plan. The CTP 2040 has a vision of having “a fully integrated, multimodal and

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sustainable transportation system in California that delivers on the ‘3 E’s—a prosperous economy, a quality environment, and social equity.” One of the Plan’s goals, for sustaining a prosperous economy, is to “improve multimodal mobility and accessibility for all people.” An underlying policy is to “provide viable and equitable multimodal choices, including active transportation.” The CTP 2040 integrates Caltrans’ long-range modal plans, which include the *California State Bicycle and Pedestrian Plan*, “Toward an Active California” (Public Review Draft, February 2017. [{to be updated when adopted}](#)).

### Towards Zero Deaths

Both the U.S. DOT and Caltrans have established goals towards zero pedestrian and bicycle fatalities and serious injuries. The U.S. DOT’s *Strategic Plan 2014-2018* articulates the goal of “working toward no fatalities across all modes of travel,” encapsulated in the Toward Zero Deaths vision. To this end, in October 2016, three DOT agencies (administrations) and the National Safety Council launched the Road to Zero coalition, whose initiative is to end traffic fatalities and serious injuries on the nation’s roads within the next 30 years. For the next three years, the U.S. DOT’s National Highway Traffic Safety Administration (NHTSA) has committed \$3 million annual funding for to provide Safe System Innovation grants. The grants are to be awarded to “organizations with innovative approaches to making roadways safer and eliminating preventable roadway deaths” (NSC 2017).

Part of the Caltrans current *Strategic Management Plan* (Caltrans 2015) is to adopt a “Toward Zero Deaths” practice in order to reduce fatalities and injuries related to surface transportation. The corresponding performance targets are:

- 0.5 or less auto travel fatalities per 100 million (auto) vehicle miles traveled on the State Highway System every year;
- 10% reduction in number of fatalities in a calendar year for car, bicycle, pedestrian, and transit modes of travel; and
- to be determined for reducing the number of injuries for car, bicycle, pedestrian, and transit modes of travel. Baseline and targets will be established based on best industry practices.



### Three Feet for Safety Act

Drivers in California must maintain a minimum three-foot buffer when passing a bicyclist, pursuant to the “3 feet” law that became operative on September 16, 2014. (California Vehicle Code section 21760—Driving, Overtaking, and Passing). If there is not a three feet buffer due to traffic or roadway conditions, “the driver shall slow to a speed that is reasonable and prudent, and may pass only when doing so would not endanger the safety of the operator of the bicycle, taking into account the size and speed of the motor vehicle and bicycle, traffic conditions, weather, visibility, and surface and width of the highway.” The law set very modest infraction fines of \$35 for violations, and \$220 if the violation causes a bicyclist bodily injury.

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### BICYCLING AND WALKING DOUBLED FROM 2000 TO 2010\*

## REFERENCES

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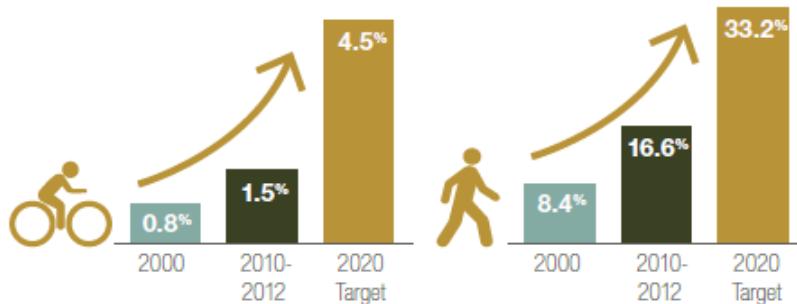
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\*Data from 2010-2012 California Household Travel Survey. Figures are as a percent of all trips.

While bicycling and walking continue to increase in California, some of our peer states are doing better.



Source: Caltrans 2017

Data from American Community Survey for 2014