3.0 PROJECT DESCRIPTION

This chapter provides a description of the proposed First Year of the First Five-Year Bicycle Plan Implementation Strategy. The project description includes the background of the proposed projects, the project objectives, and an overview of the existing environment.

3.1 PROJECT BACKGROUND

The City of Los Angeles adopted the 2010 Bicycle Plan (Bicycle Plan or 2010 Plan) on March 1, 2011. The Bicycle Plan is a component of the Transportation Element of the City's General Plan. The purpose of the Bicycle Plan is to increase, improve, and enhance bicycling in the City as a safe, healthy, and enjoyable means of transportation and recreation. The Bicycle Plan establishes policies and programs to increase the number and type of bicyclists in the City and to make every street in the City a safe place to ride a bicycle. The Bicycle Plan identifies a 1,684-mile bikeway system and includes a comprehensive collection of programs and policies. The Bicycle Plan introduces three new bikeway networks: the Backbone, the Neighborhood Network, and the Green Network. Implementation for these three networks are intertwined and build off the 334 miles of existing (2010) bikeways that have been installed over the past thirty plus years.

The Bicycle Plan contains several innovations in bicycle planning for Los Angeles. These include a Citywide Bikeway System comprised of three bikeway networks (mentioned above), Bicycle Friendly Streets, the bundling of programs and policies, and a multi-pronged implementation strategy.

The Backbone and Neighborhood Networks are on City streets and are the focus of a Five-Year Implementation Strategy. These two networks represent 1,541 of the total 1,684 miles. Of the 1,541 miles, a total of 314 miles are either existing bikeways or are in design and/or under construction. The Bicycle Plan establishes the Five-Year Implementation Strategy as a logical process to design, analyze and build 1,227 miles on the Backbone and Neighborhood Networks in five-year increments within the next 35 years. Program 1.1.2 C of the Bicycle Master Plan calls for funding and construction of at least 200 miles of on-street bicycle facilities on the Backbone and Neighborhood Networks every five years until the networks are complete.

Bicycle lanes included in the 2010 Plan were in various stages of planning. Some were well defined but others require additional study to determine exact routes and/or roadway design. To the extent that impacts of the 2010 Plan could be analyzed they were addressed in a Mitigated Negative Declaration (MND) on the 2010 Plan. However, as some bicycle lanes are further defined, they require additional analysis.

In general bicycle lanes with the potential to significantly impact the environment are those that result in loss of a travel lane in a high-traffic area, or loss of a parking lane adjacent to land uses without off-street parking available. Loss of a travel lane has the potential to significantly impact traffic, as well as related issues (noise and air quality). In September 2012, Governor Brown signed in to law AB 2245 (adding Section 21080.20.5 to the Public Resources Code), which allows (through January 1, 2018) a Statutory Exemption for striping new bicycle lanes. While the new law does allow a Statutory Exemption from CEQA, it does require preparation of an assessment of traffic and safety (including measures to mitigate the project) and that public hearings be held.

Bicycle lanes that do not have the potential to have significant adverse impacts are addressed in the MND prepared for the 2010 Bicycle Plan.

3.2 PROJECT OBJECTIVES

The primary objectives of the First Year of the First Five-Year Implementation Strategy and the My Fig Project are as follows:

- Continue to implement the goals of the City of Los Angeles Transportation Plan and the 2010 Bicycle Plan by designing and installing bicycle lanes throughout the City on the schedule identified in the 2010 Bicycle Plan;
- Promote a street network structure that includes a bicycle network to encourage bicycling as an alternative to automobile use;
- Achieve substantial air quality improvements as a result of mode shift from auto to bike, for example achieve a reduction in ROG, NOx, PM_{10}, and CO emissions;[1]
- Improve connectivity of bicycle lanes to provide increasing cross-town (north south and east west) bicycle access;
- Provide for bicycle access to regional transit stop;
- Improve bicycle safety in the City of Los Angeles and therefore encourage bicycle use for all trip types;
- Increase bicycle and pedestrian trips as a percentage of total trips and reduce greenhouse gas emissions;
- Encourage multi-modal travel by creating a better environment for bicyclists, pedestrians, and transit users while accommodating vehicles;
- Increase mobility by developing transportation alternatives; and making streets more accessible to bicycles and pedestrians;
- Provide opportunities to increase public health and to promote active healthy lifestyles by providing bicycling facilities and pedestrian friendly environments; and
- Link South Los Angeles to Downtown Los Angeles with enhanced design and pedestrian elements.

3.3 PROJECT BENEFITS

Travel Mode Benefits

As stated above, the 2010 Bicycle Plan calls for a programmatic buildout of backbone and neighborhood bicycle network (a total of 1,684 miles of bikeways in the City by 2045) with a distinct purpose to increase bicycle trips as a percentage of total trips. National studies show that communities that invest in bicycle infrastructure show a corresponding increase in bicycle ridership[2] relative to all travel modes.[3][4] Although only about one percent of total U.S. trips are made by bicycle (according to the 2009 NHTS estimates), several cities around the country such as Portland, Minneapolis, and Seattle have cycling rates five to ten times higher due to supportive public policies and infrastructure.[5]

[1]The California Air Resources Board estimated that if Californians in the South Coast Region were to replace an additional one percent of car and light truck trips with bicycle trips in 2010, it would result in the following reductions (tons/day): ROG, and NOx by 1.38, PM_{10} by 0.25, and carbon monoxide emissions by 7.78 http://www.arb.ca.gov/planning/tsaq/bicycle/factsht.htm Accessed October 2. 2012.

[2]Dill, Jennifer and Theresa Carr. 2003. Bicycle Commuting and Facilities in Major Cities: If You Build Them, Commuters Will Use Them. Transportation Research Record 1828:116-123.

[3]Buehler, R. and J. Pucher, (2011) Cycling to work in 90 large American cities: new evidence on the role of bike paths and lanes. Transportation (2012) 39:409–432.

[4]Krizek. K.J., G. Barnes, and K. Thompson. (2009) Analyzing the Effect of Bicycle Facilities on Commute Mode Share over Time. Journal of Urban Planning and Development. 10.1061/_ASCE_0733-9488_2009_135:2(66-73).

[5]Alliance for Bicycling and Walking, 2012. Bicycling and Walking in the United States: 2012 Benchmarking Report.

A cross sectional analysis of 43 large cities across the country found that for U.S. cities with population more than 250,000, each additional mile of bike lanes per square mile is associated with a roughly one percentage point increase in bicycle commute mode share.[6] In 2010, there were 334 miles of existing bikeways in the City, and as of 2008, the bicycle commute to work mode share was 0.9 percent (up from 0.61 percent in 2000). According to this projection, the full completion of 1,684 miles of bikeways could result in 3.6 percent of all work-related trips to be made by bicycle. Additionally, as bicycle ridership would be proportionately higher within 0.25 miles of existing facilities[7], an increase from 0.9 percent to 3.6 percent total bicycle commute mode could result in a visible reduction of travel delay along corridors with bicycle facilities.

However, this may be an underestimate, as bicycle use in the City has already shown a 48 percent increase in bicycle commuting over eight years between 2000 and 2008 while the City implemented 59.2 miles of additional bicycle lanes within the same period. This represents a 0.3 percent increase relative to other travel modes, which is nearly three times the amount of growth predicted (0.12 percent) in comparison to national research trends described above.

Increase in Overall Bicycle Demand

Several converging factors indicate demand in bicycling as a travel mode choice will continue to increase. Such factors include, but are not limited to, changing demographic preferences, responses to high gas prices, concerns about personal health and fitness, and transportation impacts on the environment. In 2009, people between the ages of 16 to 34 drove 23 percent less than the same age group did in 2000.[8] This decrease in driving as a preference may be more than a short-term trend and instead be a result of rising gas prices as the average cost of gasoline has more than doubled during that same time.[9] This has made driving a more costly travel choice that disproportionately impacts those with less disposable income.

This spike in interest in alternative travel modes is reflected in available bicycle ridership data. From 2007 to 2008 alone, there was a 41 percent increase in bicycle commuting in the City.[10] This is compared to a 36 percent increase in bicycle commute mode from 2005 to 2009 in Los Angeles County,[11] demonstrating an overall interest in bicycle commuting throughout the region. While data on bicycle commuting is readily available from varied sources such as the U.S. Census American Community Survey, bicycle ridership data as a percentage of total trips has only recently been collected on a local level. However, the Los Angeles County Bicycle Coalition (LACBC) conducted multi-year bicycle counts at 17 intersections which showed an average 32 percent increase in bicycle ridership from 2009 to 2011.[12]

The ability for bicycle travel to serve as a practical modal substitute for many trips helps to explain this growth trajectory. According to the 2009 National Household Travel Survey, 41 percent of all trips in Los Angeles County are three miles or less[13], well within the four miles or less trip distance found to be attractive

[6]Dill, Jennifer and Theresa Carr. 2003. Bicycle Commuting and Facilities in Major Cities: If You Build Them, Commuters Will Use Them. Transportation Research Record 1828:116-123.

[7]The average distance travelled by bicycle to a bicycle facility is 0.27 miles. Dill and Jennifer, Ph.D. John Gliebe. 2008. Understanding and Measuring Bicycling Behavior: a Focus on Travel Time and Route Choice. OTREC-RR-08-03 Approximately 38 percent of Los Angeles County population has access to bikeways (within 0.27 miles) (American Community Survey, 2008, SCAG 2012-2035 RTP/SCS, page 25) The commute mode share is 1.11 percent by bicycle in high accessible areas as defined in Metro's Countywide Sustainability Planning Policy.

[8]Davis, Benjamin, Tony Dutzik,and Phineas Baxandall. (2012) Transportation and the New Generation: Why Young People Are Driving Less and What It Means for Transportation Policy. U.S. PIRG Education Fund and the Frontier Group.

[9]*Ibid.*

[10]The City of Los Angeles Department of City Planning. (2011) 2010 Bicycle Plan.

[11]Southern California Association of Governments. (2012) Proposed Final 2012-2035 RTP/SCS.

[12]Los Angeles County Bicycle Coalition. 2011. 2011 Los Angeles Bicycle and Pedestrian Count Report.

[13]Safe Routes to School California website, http://saferoutescalifornia.wordpress.com/2012/09/24/19percent_lac/ Accessed on November 29, 2012, and NHTS, National Household Travel Survey, U.S. Department of Transportation and Federal Highway Administration, 2001, 2009.

for bicycle riders. However, a disproportionate share of congestion tends to be work-related trips. In the 2012-2035 RTP/SCS, SCAG projects that on a regional level, 27 percent of work-commute trips will be less than five miles by 2035, which is expected to be a much larger share in the City given the higher density land use patterns and better job housing balance. A Portland based study found that median bicycle work-commute distance was 3.8 miles,[14] which demonstrates that a substantial amount of work related trips can be accommodated by bicycle travel if this mode is perceived to be both safe (adequate protection from traffic) and convenient (connects to home and work destinations).

Evidence indicates that in spite of the increased interest in bicycling in the City, a lack of adequate bicycle facilities inhibits the latent demand for bicycling from reaching its full potential. The most often cited reasons for not bicycling in general are fear of riding with traffic, lack of access to bicycle facilities, lack of bicycle parking, bad weather, and distance.[15] A 1991 national transportation poll reported that 46 percent of adults who bike at least twice a year say they would sometimes commute to work by bicycle if safe bicycle lanes were available.[16] More recent data from Portland found that of 566 people randomly surveyed in 2005, over half identified as at least occasional riders, and the lack of bicycle lanes was a barrier for 37 percent of respondents who wanted to cycle more (between 83 to 90 percent of irregular bicyclists).[17] On a local level, a 2012 Caltrans-sponsored survey of travelers along Santa Monica Blvd. found that 60 percent of all the people surveyed responded that they would be "somewhat likely" to walk and bike more if there were more bicycle lanes.[18] From a public outreach survey conducted as part of the Bicycle Plan process, respondents answered that Class II bike lanes were the most preferred (43 percent) and most needed (63 percent) type of bicycle facility.[19]

The growth in bicycle commute mode share and ridership in general as a result of new bikeways is not expected from those who either lack interest or whose lifestyle prohibits them from bicycling on a regular basis. Rather, growth of the buildout of bike facilities is mostly expected from people who already occasionally ride due to convenience or recreation, or show an interest in doing so. A recently developed conceptual scheme that classifies the public attitude toward bicycling into four categories: 'strong and the fearless', 'enthused and confident', 'interested but concerned', and 'no way no how' identified 60 percent of people as belonging in the 'interested but concerned category', while 33 percent had no interest bicycling regardless of bicycle investment.[20] The 'interested but concerned' category are not regular bicycle riders, but are interested in bicycling more although they are not comfortable riding amongst higher flow traffic without some level of protection.[21] The surveys indicate that investments in higher level of protection, (from signed routes as the lowest level, Class II bicycle lanes higher level, and physically separated cycle track or bicycle path as the highest level) will likely yield higher level of ridership from this category. This is especially true in encouraging more women to bicycle, whom currently contribute to only 25 percent of bicycle trips across the country, and as low as 17 percent of bike trips in the City according to LACBC's 2011 bicycle count.

[14]Dill, J., Gliebe, J., 2008. Understanding and measuring bicycling behavior: A focus on travel time and route choice. Oregon Transportation Research and Education Consortium, Portland, OR.

[15]League of American Bicycling. 2003. Bicycling in America in 2003, http://www.bikeleague.org/media/facts/pdf/BicyclinginAmerica02to03.pdf, accessed on November 27, 2012.

[16]Harris Poll Data published by Bicycling Magazine, April 1991 and by Rodale Press, 1992.

[17]Dill, Jennifer and Kim Voros, 2007. Factors Affecting Bicycling Demand: Initial Survey Findings from the Portland, Oregon, Region. Transportation Research Record: Journal of the Transportation Research Board, Issue 2031, 2007, pp. 9-17

[18]Sanders, Rebecca, Ashleigh Griffin, Kara E. MacLeod, Jill F. Cooper, David Ragland. 2012. The Effects of Transportation Corridors' Roadside Design Features on User Behavior and Safety, and their Contributions to Health, Environmental Quality, and Community Economic Vitality: Phase IV Final Report (Draft). Caltrans – Report Number CA11-1094.

[19]The City of Los Angeles Department of City Planning. (2011) 2010 Bicycle Plan.

[20]Dill, Jennifer and Nathan McNeil. 2012. FOUR TYPES OF CYCLISTS? Testing a Typology to Better Understand Bicycling Behavior and Potential.

[21]*Ibid.*

Irrespective of gender, people living within at least a 0.50 miles of a path are at least 20 percent more likely to bicycle at least once a week (compared to people living between 0.50 and one miles away from a path.[22]

While it is an important objective to provide bicycle facilities for the population that currently choose to bicycle in the City, it is also important to recognize the ridership gains that can be made from a larger demographic who will make this a travel choice once they deem it both safe and convenient. This larger increase in ridership would be a benefit to the bicycle rider's personal health, and budget, as well as the greater public benefit through reduced congestion, and increased environmental quality. Some of these other benefits are described in more detail below.

Road Safety

As indicated above, the perception of safety is one of the most important factors in choosing bicycle as a travel mode. In 2001, bicyclists in the United States had 12 times more fatalities than drivers per mile traveled.[23] Collisions with a vehicle traveling at 20 miles per hour results in a 5 percent pedestrian fatality, and fatalities increase to 40, 80 and 100 percent when the vehicle speed increase to 30, 40 and 50 miles per hour respectively.[24] Bicycle lanes, when accompanied by travel lane reduction can help reduce over-all vehicle speed.[25]

The addition of bicycle lanes on arterial streets is shown to reduce the risk of serious injuries by about 30 percent, while the upgrade to fully protected bicycle lanes or cycle tracks reduce the risk of injury by 90 percent.[26] Of 68 cities across California with highest per capita pedestrian and bicycle collisions, per capita injury rates to pedestrians and bicyclists are shown to fall precipitously revealing a non-linear relationship of bicycle safety as the level of bicycling increases.[27] This study showed as much as an eightfold variation of collisions (expressed as a percentage of those that bike or walk to work) in comparing low and high bicycling cities.[28]

The underlying reason of this pattern is that motorists drive slower when bicyclists and pedestrians are visible either in number or frequency, and drive faster when few of pedestrian and bicyclists are present resulting in higher over all travel speeds. This effect of modified driving behavior is consistent with other research focused on 24 California cities that shows that higher bicycling rates among the population generally shows a much lower risk of fatal crashes for all road users.[29] Comparing these low versus high bicycling communities, there was a ten-fold reduction in fatality rate for motorists, and eleven-fold reduction in fatality rate for pedestrians, and an almost fifty-fold reduction in fatality rate for bicyclists.[30]

Injury risks to bicyclists in New York City dropped by 72 percent between 2000 and 2010 and declined by nearly 30 percent two consecutive years in a row (2008, and 2009) when the City was the most active in building bicycle lanes.[31] A 2000 safety study of 682 bicycle-motor vehicle crashes in Phoenix found that

[22]Vernez-Moudon, A.V., Lee, C., Cheadle, A.D., et al., 2005. Cycling and the built environment, a US perspective. Transp. Res. Part D 10, 245–261.

[23]Pucher, J., and L. Dijkstra. 2003. Promoting Safe Walking and Cycling to Improve Public Health: Lessons from the Netherlands and Germany. American Journal of Public Health, Vol. 93, No. 9, 2003, pp. 1509–1516.

[24]U.S. Department of Transportation National Highway Traffic Safety Administration. 1999. Literature Review on Vehicle Travel Speeds and Pedestrian Injuries. DOT HS 809 021.

[25]Federal Highway Administration (FHWA) website. http://www.fhwa.dot.gov/publications/research/safety/10053/index.cfm, accessed on November 19, 2012.

[26]Kay Teschke et al. 2012. Route Infrastructure and the Risk of Injuries to Bicyclists: A Case-Crossover Study. American Journal of Public Health.

[27]Jacobsen, P.L. 2003. Safety in Numbers: More Walkers and Bicyclists, Safety Walking and Bicycling. Injury Prevention 9~3!:205–209.

[28]*Ibid.*

[29]Marshall, Wesley E., N. W. Garrick. 2011. Evidence on Why Bike-Friendly Cities Are Safer For All Road Users. Environmental Practice 13 (1) March 2011.

[30]*Ibid.*

[31]Adam Arvidson, 2012. *Power to the Pedalers.* Planning May/June 2012, pp. 12-17.

95 percent of crashes occurred on streets with no bicycle facilities and only two percent occurred in bicycle lanes.[32]

Inclusion of protected bicycle lanes further increases the level of safety. New York City implemented the first fully protected bike lanes in the country (similar to what is proposed for the Figueroa Streetscape Project). Protected bike lanes in New York City on 8th and 9th Avenues resulted in 35 percent and 58 percent decrease respectively in injuries to all road users.[33] In the same study, implementation of bus/bike lanes in First and Second Avenues led to 37 percent decrease in injury crashes.[34]

Public Health Benefits

Public health professionals are paying an increasing amount of attention to the consequences of sedentary lifestyle on public health, further finding that prevailing transportation and land use patterns present barriers to healthy travel options.[35] Health experts maintain that thirty minutes a day of utilitarian bicycling (replacing short distance trips of five miles or less) constitutes the adequate level of 'moderate intensity' of activity shown to produce the optimal health benefits that include lower blood pressure as well as lower incidents of obesity, diabetes, heart disease and other diseases.[36] From data that is available, modest increases in bicycling resulted in an 11 percent reduction in heart disease, and a study in Copenhagen found a 28 percent reduction in mortality.[37] Increases in bicycling have also shown to improve mental health, alleviate symptoms of depression and anxiety, improve cognitive function of school aged children, prevent or slow cognitive decline in older adults, as well as contribute to an overall sense of well being.[38] The same literature also suggest that benefits from increased bicycling at the community level helps to lower crime and fosters civil social interactions.[39]

According to the County Health Rankings & Roadmaps program[40], 19 percent of the population in Los Angeles County lacks the recommended amount of physical activity while 22 percent are classified as obese.[41] As stated above, the implementation of bicycle lanes will encourage higher bicycle ridership from portions of the population that are currently reluctant to bicycle without adequate facilities, thereby increasing access to healthy activities and fostering healthy outcomes for a larger section of the population.

Environmental Benefits

Criteria pollutants such as particulate matter (PM), ozone (O_3), and nitrogen oxide (NO_X) are known to contribute to a variety of cardiovascular and respiratory diseases. The South Coast Air Basin currently fails to meet the national and State O_3, $PM_{2.5}$ and PM_{10} air quality standards, largely as a result of vehicle emissions.[42] According to the Draft 2012 Air Quality Management Plan, emission sources from on-road vehicles accounted for the following percentages of total emissions sources in the South Coast Air Basin in 2008: 35.2 percent of volatile organic compounds (VOCs), 61 percent of NOx, 68 percent of CO, 3.7 percent of SOx, and 23.8 percent of $PM_{2.5}$.

[32]Adam Arvidson, 2012. *Power to the Pedalers.* Planning May/June 2012, pp. 12-17.

[33]NY DOT, 2012. Measuring the Street: New Metrics for 21st Century Streets.

[34]*Ibid.*

[35]Designing Healthy Communities website, http://designinghealthycommunities.org/the-american-way-of-unhealthful-living/, accessed on November 19, 2012.

[36]Garrard, Jan., Chris Rissel, and Adrien Bauman. 2012. Health Benefits of Cycling, a chapter in *City Cycling*, edited by John Pucher and Ralph Buehler.

[37]*Ibid.*

[38]*Ibid.*

[39]*Ibid.*

[40]A collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute, County Health Rankings & Roadmaps program website, http://www.countyhealthrankings.org/app/california/2012/los-angeles/county/1/overall, accessed on November 19, 2012.

[41]*Ibid.*

[42]South Coast Air Quality Management District. 2012. Draft Final 2012 Air Quality Management Plan, pg. 3-17, ccessed on November 26, 2012.

The Los Angeles County Bicycle Plan indicates that the total number of bicycle commuters could increase from the current estimate of 2,612 to 12,021 by the year 2030 in the Metro Planning Area.[43] SCAG estimates that a replacement of as much as two-thirds of vehicle trips of three miles or less with other bicycle and pedestrian travel modes could result in a reduction of 7.8 million vehicle miles by 2020 and 20.4 million vehicle miles by 2035.[44] Short trip distances replaced by bicycle trips could make a significant impact on lowering criteria air pollutants such as O_3 precursors in dense urban areas. CARB states that for each one percent replacement of automobile trips with bicycle trips in the South Coast region results in a reduction of 1,027,214 less vehicle miles travelled, which corresponds to a reduction of 1.38 combined tons of VOC and NOx, 0.25 tons of PM_{10}, and 7.78 tons of CO in the year 2010.[45] Therefore, increasing bicycle ridership would result in beneficial reductions in criteria air pollutant emissions.

The City is required to meet regional GHG reduction targets pursuant to statewide regulation. The reduction in vehicle trips as a result of increase in bicycling will result in lower greenhouse gas emissions in addition to criteria air pollutants. As of 2009, the transportation sector contributed to 38 percent of total GHG emissions generated in California.[46] An average car emits 5.5 tons of CO_2e annually[47], and the average person takes 3.7 trips per day or 26 trips per week.[48] A replacement of 20 percent of those personal trips by bicycle or walking would be enough to remove over a ton of CO_2e emissions from Los Angeles air basins per week.[49]

3.4 LOCATION AND SURROUNDING LAND USES

Regional Location

The study area for the First Year of the Five Year Implementation Strategy project consists of approximately 39.5 miles in the communities of Hollywood, Westside, Central Los Angeles, and Northeast Los Angeles. The study area for the Figueroa Streetscape Project consists of a three-mile stretch along Figueroa Street.

As shown in **Figure 3-1**, the bicycle lanes would be located in urbanized areas throughout the City of Los Angeles. The bicycle lanes would be located within existing right of ways of streets and would entail re-striping of existing roadways. No changes in location of curbs or widening of roadways are anticipated. The project segments are relatively flat and consist of paved asphalt and sidewalks. As shown in **Figure 3-2**, the proposed bicycle lanes addressed in this EIR would provide connectivity with existing bicycle lanes thus facilitating bicycle access throughout the City.

Surrounding Uses

As required by CEQA Guidelines Sections 15125(a) and (e), an EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time of the Notice of Preparation (NOP). This environmental setting constitutes the baseline physical conditions by which the City will determine the impacts of the proposed projects. The project and surrounding areas are completely developed and consists of urbanized land uses including commercial, retail, entertainment, office, residential and institutional uses. Descriptions of the environmental settings are provided for each issue area in Chapter 4.0 Environmental Impacts of this EIR.

[43]The County of Los Angeles 2012 Bicycle Master Plan http://dpw.lacounty.gov/pdd/bikepath/bikeplan/docs/bmp/Appendix%20B.pdf, accessed on December 6, 2012.
[44]SCAG 2012-2035 RTP/SCS, Active Transportation, page 42.
[45]CARB website, http://www.arb.ca.gov/planning/tsaq/bicycle/factsht.htm, accessed on November 25, 2012.
[46]CARB, California Greenhouse Gas Inventory 2000-2009, December 2011.
[47]U.S. Environmental Protection Agency.
[48]The City of Los Angeles Department of City Planning. (2011) 2010 Bicycle Plan.
[49]*Ibid.*