

# INTRODUCTION

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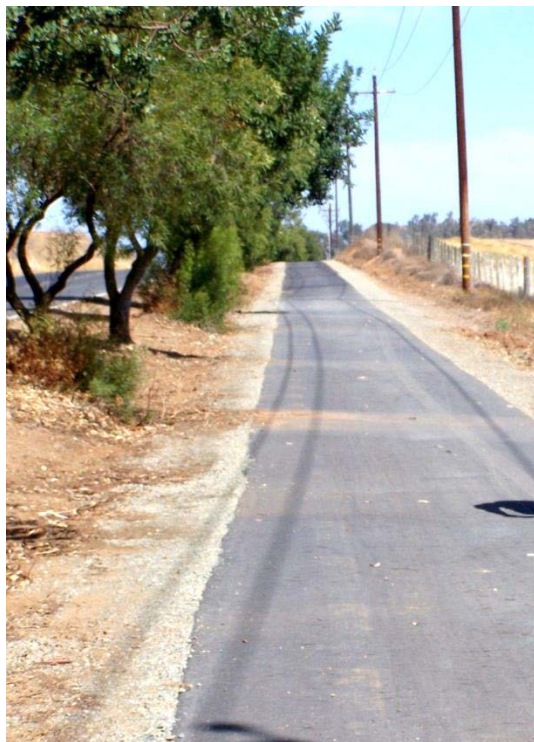
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# 1.1 Overview

The City of Merced will continue to face significant change over the next several years. Bike commuting interests and needs will likely increase due to its proximity to the University of California Merced campus, which had a student-body population of 5,760 in 2013 and is planning to expand to 10,000 students by 2020. Many local groups are engaged in healthy-living initiatives, which will encourage more bicycle riding in Merced. The potential high-speed rail station could also bring additional demand and opportunity for increased bicycle commute trips. These provide exciting opportunities for Merced to evolve with the changing regional environment. One of those opportunities is the potential for developing a more Bicycle-Friendly Community.







Cities that provide comprehensive bikeways offer enormous benefits to both the cycling and non-cycling public. Bikeways and bicycle support facilities attract more bicyclists, bringing air, noise, and water quality benefits. The reduction of road maintenance costs results in a more efficient use of public dollars. The carrying capacity of the transportation system is increased. Bikeways improve safety for all users; bicyclists feel they have a safe space on the road and tend to be more law-abiding, while motorists drive with greater ease knowing where bicyclists are likely to be. Bikeways also create public awareness of bicyclists' right to share the road.

Over the course of the last 25 years, the City of Merced has shown a serious commitment to creating a bicycle friendly community investing over 4 million dollars in developing its bikeway system. The *City of Merced 2013 Bicycle Transportation Plan* ( *2013 BTP*) continues that tradition by including over 100 potential projects for bikeways, support facilities, and other related activities and tasks. The *2013 BTP* accomplishes one step of several to fully realize the development of the listed projects. The ability to accomplish projects, however, is dependent upon a dynamic setting of funding and staff resources as they apply to all steps, which include: 1) describing the community vision (the BTP); 2) having available local funding sources; 3) the ability and success to compete for and being awarded state and federal grant funds; 4) completed environmental reviews; 5) completed engineering and design; and, 6) continued community support for projects. Thus, while the *2013 BTP* is a significant initial step toward realization of the City's intent to construct bikeways and support facilities, the scope and function of the *2013 BTP* is to identify the desired possibilities of the community which may be implemented during the 5-year life of the BTP.

# 1.2 Setting

The City of Merced is the largest urbanized area in Merced County, a predominantly agricultural county. The City of Merced is about 23 square miles in area, and measures approximately 7 miles in the north-south direction and 6.5 miles in the east-west direction. Unlike many San Joaquin Valley cities, Merced is fortunate to have several natural creeks running through the City. Merced is home to the Merced Community College, the ever-expanding UC Merced, and various technical training facilities.

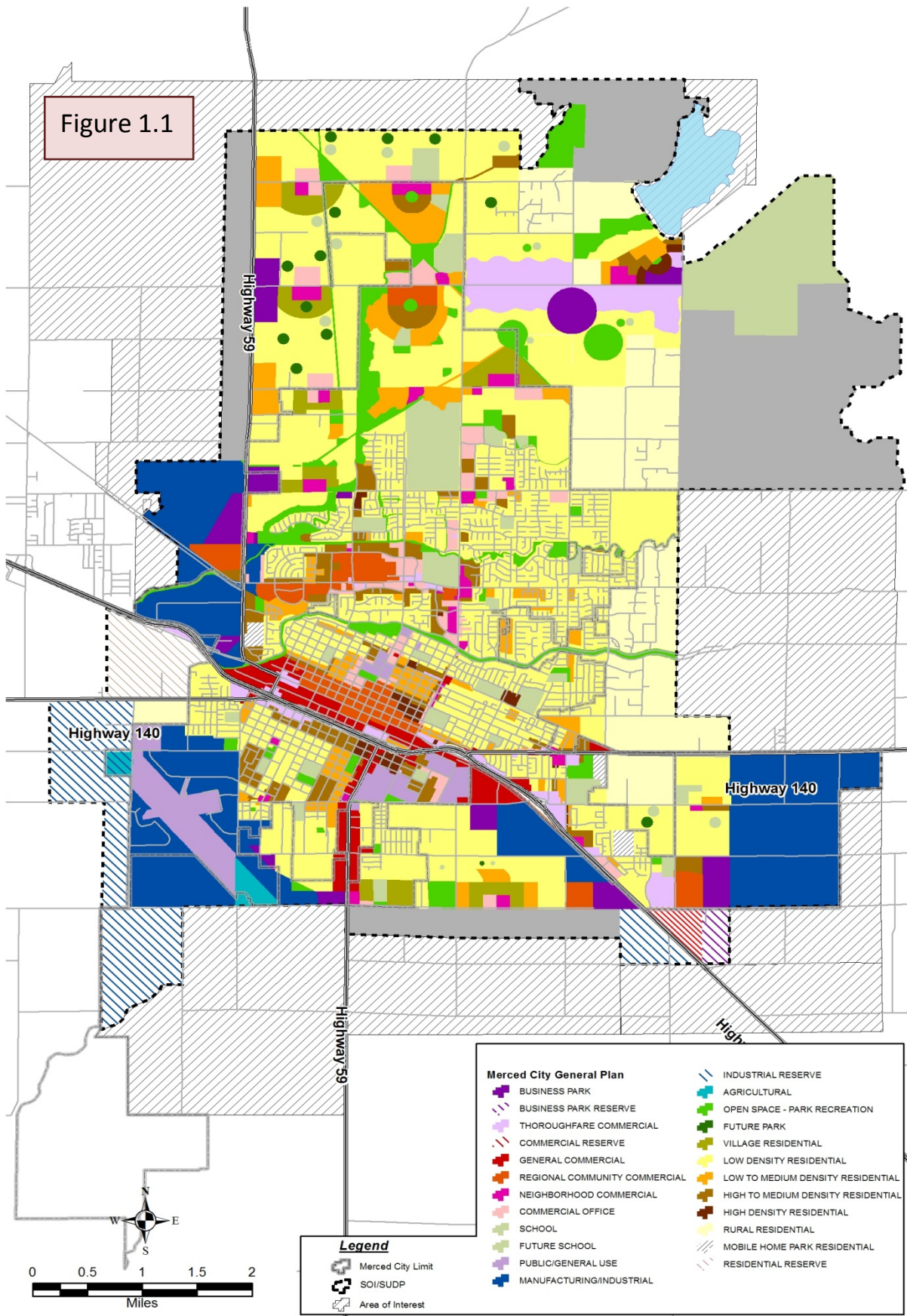
Bicycles are an important mode of transportation in the community. Merced has utilized the natural creeks to construct bike paths alongside them, and has set up bike lanes and routes along major streets. Merced has both a favorable climate and a relatively-flat terrain to encourage the use of bicycles for both recreation and fitness, and for transportation.

## 1.2.1 Land Use / Settlement Patterns

Merced residents enjoy Merced's compact size, its small-town feel, abundant shopping, pleasant neighborhoods, beautiful tree-lined streets, creek side bikeways, parks and historic structures, close proximity to the Merced College and the U.C., and surrounding agricultural and open space land. As envisioned in the City's General Plan in 2030, parks and open spaces will link residential, commercial, and employment centers in such a manner as to provide an attractive pedestrian and bicycle alternative to driving. Convenience, safety, and connectedness of bicycle bikeways and support facilities benefit bicycle usage. The City's Official Land Use Diagram in the *Merced Vision 2030 General Plan* (Figure 1.1) maps the existing and proposed land use and settlement patterns, showing residential neighborhoods, schools, shopping centers, public buildings, and major employment center locations, among others. Employment centers are typically focused in the City's commercial, industrial and business park land use designations. Maps in Appendix C show employment concentrations relative to existing and proposed bikeways.

The General Plan Land Use Diagram includes the growth area of UC Merced, the University Community Plan, as well as the Bellevue Community Plan area. The population in these areas is expected to have a higher than average use of bikeways and support facilities than the remainder of the City.

Figure 1.1



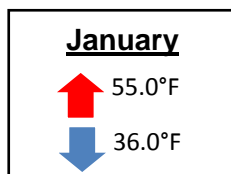


## 1.2.2 Population

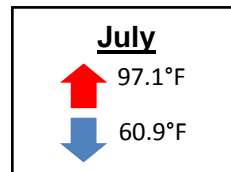
The City of Merced was incorporated as a Charter City in 1889. Since incorporation, the City has grown to a population of 80,542 in 2013. According to the *Merced Vision 2030 General Plan*, Merced's population may approach 117,000 persons by 2020, and 159,900 by 2030. These figures include students and faculty that attend or work at UC Merced and nearby neighborhoods.

## 1.2.3 Area Climate

The City of Merced has moderate climate, making year-round bicycling possible. Merced has wet, cool winters and hot, dry summers. Although thunderstorms may linger into the valley during the summer, they are normally dry.

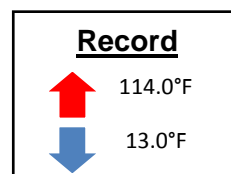


Average January temperatures are a maximum of 55.0°F and a minimum of 36.0°F.



Average July temperatures are a maximum of 97.1°F and a minimum of 60.9°F.

There is an average of 98.7 days with highs of 90°F (32°C) or higher and an average of 33.6 days with lows of 32°F (0°C) or lower.



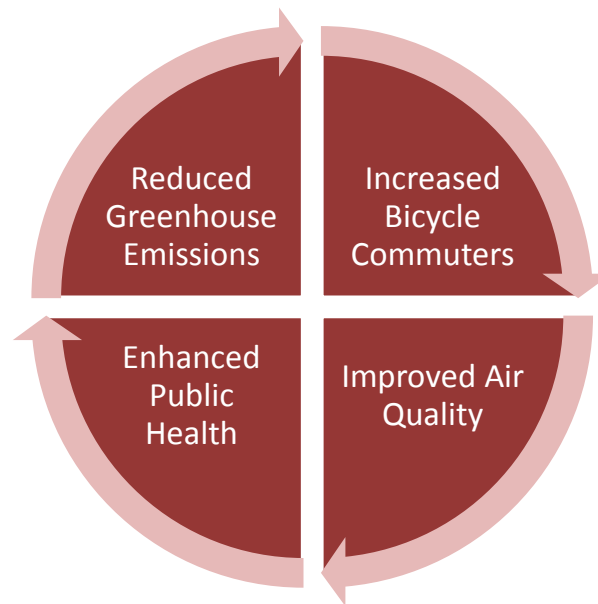
The record highest temperature of 114°F was recorded on July 24, 1902, and August 8, 1905. The record lowest temperature of 13°F was recorded on January 13, 2007.

Most of the rainfall occurs during the winter and averages 12.21 inches (310 mm) annually. There are an average of 48 days annually with measurable precipitation. In the winter, the area is susceptible to significant amounts of fog. The dense fog creates hazardous conditions for all types of commuters.

# 1.3 Purpose

The purpose of the 2013 *BTP* is to provide City Staff and the community with a comprehensive, long-range view for the development of bicycle facilities and programs within the City of Merced. A certified BTP also qualifies the City to apply annually for State of California Bicycle Transportation Account funds through Caltrans. The implementation of this plan will result in a comprehensive, continuous, and well-maintained bikeway network, maximizing bicycling benefits to the area's cycling and non-cycling public.

## BENEFITS:





# 1.4 Plan Development

The *2013 BTP* is a third generation plan, following Bicycle Transportation Plans prepared in 2003 and 2008. As with its predecessors, the *2013 BTP* contains minimum content requirements in order to be eligible to receive Bicycle Transportation Account (BTA) funds.

## 1.4.1 Bicycle Transportation Plan Content Requirements

In order to be eligible to receive Bicycle Transportation Account (BTA) funds, minimum content requirements guide the composition of BTPs; these are specified in the **STREETS AND HIGHWAYS CODE SECTION 891.2**: A city or county may prepare a bicycle transportation plan, which shall include, but not be limited to, the following elements:

<p><b>a)</b> The estimated number of existing bicycle commuters in the plan area and the estimated increase in the number of bicycle commuters resulting from implementation of the plan.</p>	<p><b>e)</b> A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These shall include, but not be limited to, parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.</p>	<p><b>g)</b> A description of bicycle safety and education programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the Vehicle Code pertaining to bicycle operation, and the resulting effect on accidents involving bicyclists.</p>	<p><b>i)</b> A description of how the bicycle transportation plan has been coordinated and is consistent with other local or regional transportation, air quality, or energy conservation plans including, but not limited to, programs that provide incentives for bicycle commuting.</p>
<p><b>b)</b> A map and description of existing and proposed land use and settlement patterns which shall include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, and major employment centers.</p>	<p><b>f)</b> A map and description of existing and proposed facilities for changing and storing clothes and equipment. These shall include, but not be limited to, locker, restroom, and shower facilities near bicycle parking facilities.</p>	<p><b>h)</b> A description of the extent of citizen and community involvement in development of the plan including, but not limited to, letters of support.</p>	<p><b>j)</b> A description of the projects proposed in the plan and a listing of their priorities for implementation.</p>
<p><b>c)</b> A map and description of existing and proposed bikeways.</p>			<p><b>k)</b> A description of past expenditures for bicycle facilities and future financial needs for projects that improve safety and convenience for bicycle commuters in the plan area.</p>
<p><b>d)</b> A map and description of existing and proposed end-of-trip bicycle parking facilities. These shall include, but not be limited to, parking at schools, shopping centers, public buildings, and major employment centers.</p>			<p><i>The City's BTP was developed consistent with these guidelines, and such is certified by the Merced County Association of Governments (Attachment A).</i></p>

## 1.4.2 2003 Bicycle Transportation Plan

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The *2003 Bicycle Transportation Plan (2003 BTP)* was originally developed over the course of five years with the input of a Technical Advisory Committee (TAC). The Committee consisted of: City of Merced staff representing the Parks and Recreation Department, Planning Department and Engineering Department; the Merced County Association of Government staff; an Education facility representative; and business leaders. The Committee focused on two main tasks.

### ***Target Areas***

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The TAC identified five areas within the City of Merced as target areas. These areas around the City had been identified as major trip generators, which may be better accessed by additional bicycle facilities. The target areas included: The Western Industrial Park, Merced College, South Merced including Airport Industrial Park, Eastern Merced including Golden Valley High School, and Downtown Merced. The *2013 BTP* carries these target areas forward to emphasize the importance of this prior work.

### ***Bikeway Needs Assessment***

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After determining the areas of Merced most likely to benefit from a bikeway infrastructure, the Committee evaluated existing bikeways for their safety and connectivity between residential areas and the target areas. Bikeway needs were identified in terms of route improvements, preferred projects, incentives to commute, safety concerns, and support facilities.

## 1.4.3 2008 Bicycle Transportation Plan

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The *2008 BTP* elements utilized a simpler process that involved staff input and a public workshop seeking public comments. The *2008 BTP* carried forward the uncompleted projects of the *2003 BTP*.

## 1.4.4 2013 Bicycle Transportation Plan

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Development of the *2013 BTP* is described in Chapter 8 of the *City of Merced 2013 Bicycle Transportation Plan*, and was the first to be developed under the guidance of the City of Merced Bicycle Advisory Commission. Highlights included: field surveys to determine facility presence and quality, extensive public outreach, additional projects, a quantitative prioritization methodology, and additional bikeway classifications.

# 1.5 Future Plan Needs & Activities

During the preparation of the 2013 BTP, the development team identified several studies and assessments that could improve the quality of the planning process. These are listed here so that during future updates (or prior to), these can be performed.

- Prepare a detailed comparison of the City's Official Design Standards to the standards listed in Chapter 3 of the BTP, in order to identify potential need for amendments to the BTP or the design standards.
- In conjunction with the Engineering Department, continue to assess the potential for new bikeways based on existing street features such as width, rights-of-way, curb, gutter and sidewalk, and on-street parking.
- Prepare a "Bike Commuter Map" to guide citizens and visitors to navigate Merced bikeways.
- Create a map showing where it is illegal to ride a bike on City sidewalks.
- Create and post a survey to collect data regarding bike commuting patterns and concerns of local cyclists. The data could be entered into the City's Geographic Information System (GIS) as part of bike travel usage (location and extent) patterns, which in turn will be useful in the preparation of updates to the City's BTP. The Merced County Public Health Department has developed an initial survey that could be adjusted to suit the needs of the Bicycle Transportation Plan.
- Perform a complete survey of existing bicycle support facilities such as bicycle parking, showers, rest rooms, drinking fountains, etc.



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