

2035 Metropolitan Transportation Plan / Sustainable Communities Strategy

Amendment No. 1
January 2017



Moving Forward Monterey Bay 2035

Amendment No. 1
January 2017



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Executive Summary



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Introduction

Solutions to the region's transportation needs require a comprehensive planning effort that coordinates land use patterns and transportation investments with the objective of developing an integrated, multimodal transportation system. The Metropolitan Transportation Plan (MTP) and its Sustainable Communities Strategy (SCS) are built on a set of integrated policies, strategies, and investments to maintain and improve the transportation system to meet the diverse needs of the region through 2035.

Our Vision

A Sustainable Future

The word "sustainable" is used in many contexts. In the case of this Plan it refers to the mandates arising from Senate Bill (SB) 375, California's Sustainable Communities and Climate Protection Act, to develop a Sustainable Communities Strategy. At the heart of SB 375 is the requirement to coordinate transportation investments with land use patterns such that the region makes informed decisions about where to invest the region's limited resources and simultaneously reduce greenhouse gases by providing more direct access to destinations as well as by providing alternative transportation options. Instead of basing investments solely on transportation need, this Plan is required to analyze where people are going and how they want to get there in order to build a transportation network that addresses the mobility and accessibility needs of the region. One strategy included in this Plan to achieve this is more focused growth in high quality transit corridors. Another strategy in the Plan is to provide more travel choices as well as a safe and efficient transportation system with improved access to jobs and education for our residents. Additionally, the 2035 MTP/SCS supports job creation through economic development, ensures our region's economic competitiveness through strategic investments in freight, and improves environmental outcomes for the region's residents by 2035.

Senate Bill 375

Under SB 375, the SCS should demonstrate the land use and transportation measures that will be used to meet the region's greenhouse gas emission reduction targets as established by the California Air Resources Board (CARB) - a zero percent per capita change by 2020 and five percent per capita reduction by 2035 from passenger vehicles. Both targets are compared to 2005 levels of greenhouse gases. SB 375 was enacted to support the state's goals of Assembly Bill 32, the Global Warming Solutions Act of 2006. Meeting these targets will point the region toward overall sustainability and will provide benefits beyond reducing emissions.

Senate Bill 375

Senate Bill 375, passed in late 2008, requires the 18 Metropolitan Planning Organizations (MPO) in California to reduce transportation related per capita greenhouse gas emissions through a coordinated land use and transportation plan called the Sustainable Communities Strategy, or SCS. The SCS comprises a new chapter in AMBAG's Metropolitan Transportation Plan and will help shape the region's long range transportation plan, including the financing of transportation projects.

Under SB 375, the SCS must identify a regional development pattern and transportation system that can meet the regional greenhouse gas (GHG) targets reductions from cars and light trucks for 2020 and 2035.

Pursuant to statute, the California Air Resources Board (CARB) adopted targets for each of the 18 MPOs across the state. Based upon the recommendation issued by the AMBAG Board of Directors, CARB adopted the following targets for the Monterey Bay Area in September 2010:

2020: 0% increase from 2005 per capita GHG emissions

2035: 5% reduction from 2005 per capita GHG emissions

If the SCS cannot meet the GHG targets, an "Alternative Planning Scenario" must be prepared to show how the targets could be achieved.

Regional Growth

The Monterey Bay Area is projected to grow more slowly than the state and nation. A map of the region is shown in Figure ES-1. In 2010, there were 732,708 people in the Monterey Bay Area spread over an area of 5,157 square miles. In 2035, the population is expected to reach 885,000. Additionally, there were 261,394 housing units in the region in 2010. The region is expected to add almost 42,000 more housing units by 2035 and more than 64,000 new jobs as shown in Figures ES-2 and ES-3.

Goals & Policies

AMBAG adopted a framework of goals and policy objectives to guide the development of the 2035 MTP/SCS. Chapter 1 presents these goals and policies within the context of the regional vision for 2035. The goal areas are:

- *Access and Mobility*
- *Economic Vitality*
- *Environment*
- *Healthy Communities*
- *Social Equity*
- *System Preservation and Safety*

Transportation Investments

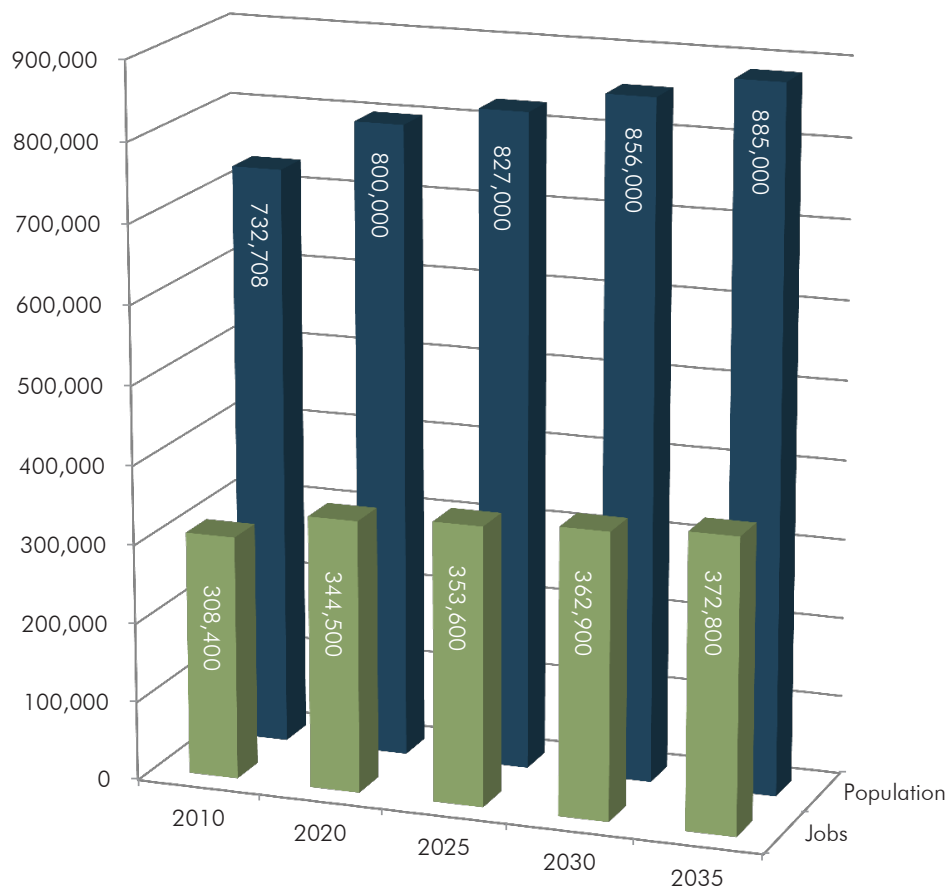
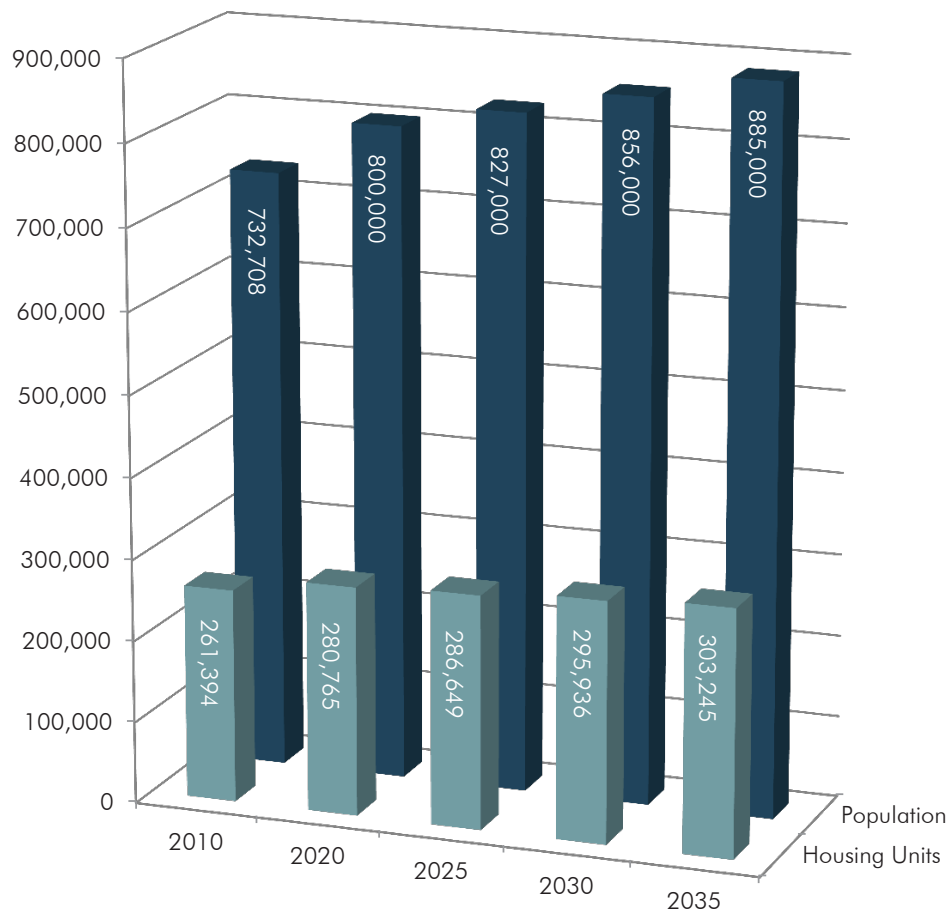
The 2035 MTP/SCS contains a number of improvements to the region's multimodal transportation system. These improvements include closures of critical gaps in the network that hinder access to jobs and daily needs, as well as the strategic expansion of the transportation system to provide the region with increased mobility.

One of the Plan's goals is to reduce per capita greenhouse gas emissions over the next 25 years, however, the total demand to move people and goods will continue to grow due to the region's projected population increase.

Figure ES-1: Regional Map



Figure ES-2 and ES-3: Population, Housing Units, and Jobs



Source: AMBAG 2014 Regional Growth Forecast

A strategic expansion of the transportation system is needed to provide the region with the mobility it needs. The 2035 MTP/SCS targets this expansion around mutually supportive bus transit, rail, key roadway, and active transportation projects. The Plan does so as cost effectively as possible by employing strategies such as combining maintenance and operations projects with bicycle and pedestrian facility improvements. These transportation systems must be improved and expanded to improve the accessibility and connectivity needed to become a truly viable alternative for the region as a whole. Chapter 2 discusses these investments in greater detail.

Financial Plan

Of all the challenges facing the region today, there is perhaps none more critical than funding. Currently, the region faces a funding shortfall just to maintain and operate the existing system. With projected growth in population, employment, and demand for travel over the next twenty years, the costs of multimodal transportation are increasing, compounding the need for new sources of revenue.

The region must consider ways to stabilize existing revenue sources and supplement them with reasonably available new sources. The region needs a long-term, sustainable funding plan that ensures the region receives its fair share of funding and supports an efficient and effective transportation system that grows the economy, provides mobility choices, and improves quality of life.

Chapter 3 provides such a financial plan and identifies how much money is available to support the region's transportation investments. The Plan includes a revenue forecast of approximately \$7.8 billion that includes local, state, and federal sources reasonably expected to be available over the timeline of the 2035 MTP/SCS.

Sustainable Communities Strategy

Chapter 4 contains the SCS which demonstrates the region's ability to exceed the GHG emission reduction targets set forth by the CARB. The SCS outlines the region's plan for integrating the transportation network within an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. The overall SCS land use development pattern complements the proposed transportation network which emphasizes multimodal system enhancements, system preservation, and improved access to high quality transit.

Performance Measures

In support of the goals and policies established through public participation efforts and stakeholder involvement, a dozen performance measures were established to measure how well the Plan performs. The investments in this 2035 MTP/SCS are expected to result in significant benefits to the region with respect to transportation and mobility, economic activity and job creation, sustainability, and environmental justice. As described in Chapter 5, the 2035 MTP/SCS exceeds the greenhouse gas emission reduction targets set by CARB by achieving a three percent per capita reduction for 2020 and a six percent per capita reduction for 2035.

Public Participation

The development of the 2035 MTP/SCS involved implementation of one of the most comprehensive and coordinated public participation plans ever undertaken by AMBAG, exceeding legislative requirements.

AMBAG engaged a wide range of stakeholder groups, elected officials, special interest groups, and the general public through a series of meetings and workshops. A video, as well as an interactive website that expanded AMBAG's ability to engage and involve stakeholders and the public in shaping the 2035 MTP/SCS. The input received through this process was critical in defining a preferred land use

and transportation strategy and meeting/exceeding the 2035 MTP/SCS goals and policies. Chapter 6 details the public outreach process to involve and engage stakeholders and the public throughout the 2035 MTP/SCS planning process.

2 Transportation Investments



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Introduction

This chapter sets forth the investments and strategies that constitute the 2035 MTP/SCS. Transportation investments should seek to both optimize the performance of the existing system as well as strategically expand the system. This includes improvements ranging from systems preservation, roadway, rail, bus, bicycle and pedestrian facilities, transportation demand management, and transportation systems management strategies. As a result, the region will have more travel choices via an efficient multimodal transportation system.

The existing regional network consists of 481 miles of highways, 1,060 miles of regional transit service, and more than 1,200 miles of regional arterials. When implemented, the improvements in the 2035 MTP/SCS will develop an improved multimodal network while maintaining the existing system.

Existing System

The existing Monterey Bay Area transportation system is comprised of roadways, transit, rail, bicycle and pedestrian networks, airports and aviation, goods movement, and management strategies. The following chapter discusses the existing system and the Plan's investments for strategic expansion.

System Preservation

The Monterey Bay Area has invested billions of dollars into building and expanding the multimodal transportation system. This 2035 MTP/SCS places a high priority on protecting the region's existing system and ensuring that the transportation system is being operated as safely, efficiently, and effectively as possible.

Safety

In 2005, Congress passed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which requires states to develop Strategic Highway Safety Plans. The California Department of Transportation (Caltrans) developed a Strategic Highway Safety Plan with an overarching goal to reduce the California roadway fatality rate to less than 1.0 fatality per 100 million vehicle miles traveled (VMT) by 2010. While the California Strategic Highway Safety Plans sets various strategies that state agencies can implement to reduce fatalities, there are complementary actions that can be performed by regional and local governments.

The projects and programs included in the 2035 MTP/SCS aim to reduce collisions and fatalities by improving the overall safety of the system. In addition, by reducing security vulnerabilities throughout

the transportation infrastructure in the Monterey Bay area, the overall strength of the transportation system will be improved. General system upgrades will keep the system in a state of good repair and improve emergency preparedness.

AMBAG, the Regional Transportation Planning Agencies (RTPAs) - the Transportation Agency for Monterey County, the Santa Cruz County Regional Transportation Commission and the San Benito Council of Governments - and various local, state, and federal agencies continue to work together to improve the safety and security of the transportation system.

Strategic System Expansion

One of the 2035 MTP/SCS's primary goal is to reduce per capita greenhouse gas emissions over the next 25 years. However, the total demand to move people and goods will continue to grow due to population increases. A strategic expansion of the transportation system will provide the region with the mobility and accessibility it's residents need. The 2035 MTP/SCS targets this expansion around bus transit, rail, key roadways, and active transportation. These networks must be improved in order to provide the accessibility and connectivity needed for a diverse population. Included in this chapter are descriptions of these strategic improvements with example projects. For a complete list of funded projects see the Regional Transportation Plans for each of the three counties.

Highways and Local Arterials

The three counties and 18 incorporated cities in the region are responsible for an extensive network of county and city roads and streets. Some of these roadways are regionally significant freeways, expressways, arterials and collectors, which not only serve local traffic, but also provide access and mobility for long distance trips within the region as well as trips that start or end outside of the region.

A regionally significant project refers to a transportation project that is on a facility which serves regional transportation needs (such as access to and from the area outside the region;

major activity centers in the region; major planned developments such as new retail malls, sports complexes, or employment centers; or transportation terminals) and would normally be included in the modeling of the metropolitan area's transportation network. At a minimum, this includes all principal arterial highways and all fixed guideway transit facilities that offer a significant alternative to regional highway travel. (23 CFR § 450.104)

Projects for these roadways are included within the 2035 MTP/SCS and are included in the Project List (Appendix C). The 2035 MTP/SCS provides over \$2.3 billion for highway investments and almost \$1.7 billion for local streets and roads.

Highways

The Monterey Bay Area includes many highways that connect people between the three counties as well as outside the region. All of these highways need ongoing upkeep and improvements to continue providing safe access to all areas of the region. Figure 2-1 illustrates the 2035 Highway Network. However, the region cannot afford to fund all needed highway projects or there would be no revenue remaining for other transportation modes. The following are examples of regionally significant highway projects included in the 2035 MTP/SCS.

- US 101 corridor
- SR 1, SR 68, and SR 156 West improvements
- SR 25 improvements
- SR 156 widening
- SR 1 auxiliary lane improvements (Santa Cruz)

Local Arterials

Local streets and roads – including the curbs and gutters, sidewalks, access ramps, bicycle paths, stop signs and traffic signals – are a critical component of the region's transportation system. The majority of travel, whether by car, bicycle, bus or foot, is done on local streets and roads. Please refer to the respective RTPA Regional Transportation Plans for additional information on regionally and nationally important local streets and roads.

Figure 2-1: 2035 Regional Highway Network





A **queue jump** is a type of roadway geometry used to provide preference to buses at intersections. It consists of an additional travel lane on the approach to a signalized intersection. This lane is often restricted to transit vehicles only. A queue jump lane is usually accompanied by a signal which provides a phase specifically for vehicles within the queue jump. Vehicles in the queue jump lane get a “head-start” over other queued vehicles and can therefore merge into the regular travel lanes immediately beyond the signal. The intent of the lane is to allow the higher capacity vehicles to cut to the front of the queue, reducing the delay caused by the signal and improving the operational efficiency of the transit system.

Some examples of regionally significant projects on local arterials include:

- Marina – Salinas Multimodal (bus/roadway) Corridor improvements
- US 101/5th Street operations improvements
- 41st Avenue multimodal improvements

Transit

The region has three RTPAs which are responsible for long term transit planning for the Monterey Bay Area. This planning function is performed in partnership with the region’s three transit operators, Monterey-Salinas Transit (MST), Santa Cruz Metropolitan Transit District (METRO), San Benito Transit (County Express). Additional public transit providers include Amtrak and six paratransit operators.

A key focus of this 2035 MTP/SCS was to invest in an ambitious transit network that significantly expands the role that transit plays in meeting the region’s mobility needs.

The 2035 MTP/SCS provides \$2.6 billion in transit capital and operating investments. Over half of this funding is consumed by the cost of operating and maintaining the transit system. The balance pays for capital expenses such as purchasing new vehicles, infrastructure associated with adding routes and stations to the bus and rail system, building new storage and maintenance facilities, and improvements to help buses move more quickly through traffic. Figure 2-2 illustrates the 2035 Transit Network, including bus rapid transit and rail.

Bus Transit

Bus transit is provided by MST, METRO, and County Express. This Plan not only provides operations funding for transit agencies to expand their service, but also includes a land use pattern that dramatically increases the number of jobs within a ½ mile of transit, thereby encouraging more people to use the system. In addition to public transit providers, Greyhound Bus Lines and Amtrak provide longer distance intercity service.

Figure 2-2: 2035 Regional Transit Network



Bus Rapid Transit

Bus Rapid Transit (BRT) is a high-capacity, transit solution that can achieve some of the same performance benefits of rail modes without the same high cost capital and operating investments as rail. This integrated system uses buses or specialized vehicles on roadways or dedicated lanes to quickly and efficiently transport passengers to their destinations, while offering the flexibility to meet a variety of local conditions. BRT system elements can easily be customized to community needs and incorporate state-of-the-art, low-cost technologies that attract more passengers and ultimately help reduce overall traffic congestion.

There are many elements to a BRT system, some or all of which can be incorporated to make a BRT more attractive than congested roadways. These include, but are not limited to: dedicated or semi-dedicated lanes, enhanced stations with real time arrival information, innovative vehicles that improve passenger comfort, improved and quicker fare collection, intelligent transportation system technologies such as transit signal priority, quicker, more efficient service and distinctive branding and identity.

The benefits to BRT service include decreased travel time, increased reliability, improved accessibility, increased safety and security as well as increased capacity. The integration of these BRT system elements have shown to increase ridership. (TCRP Project A-23, 2003)

Source: National Bus Rapid Transit Institute, <http://www.nbti.org/>

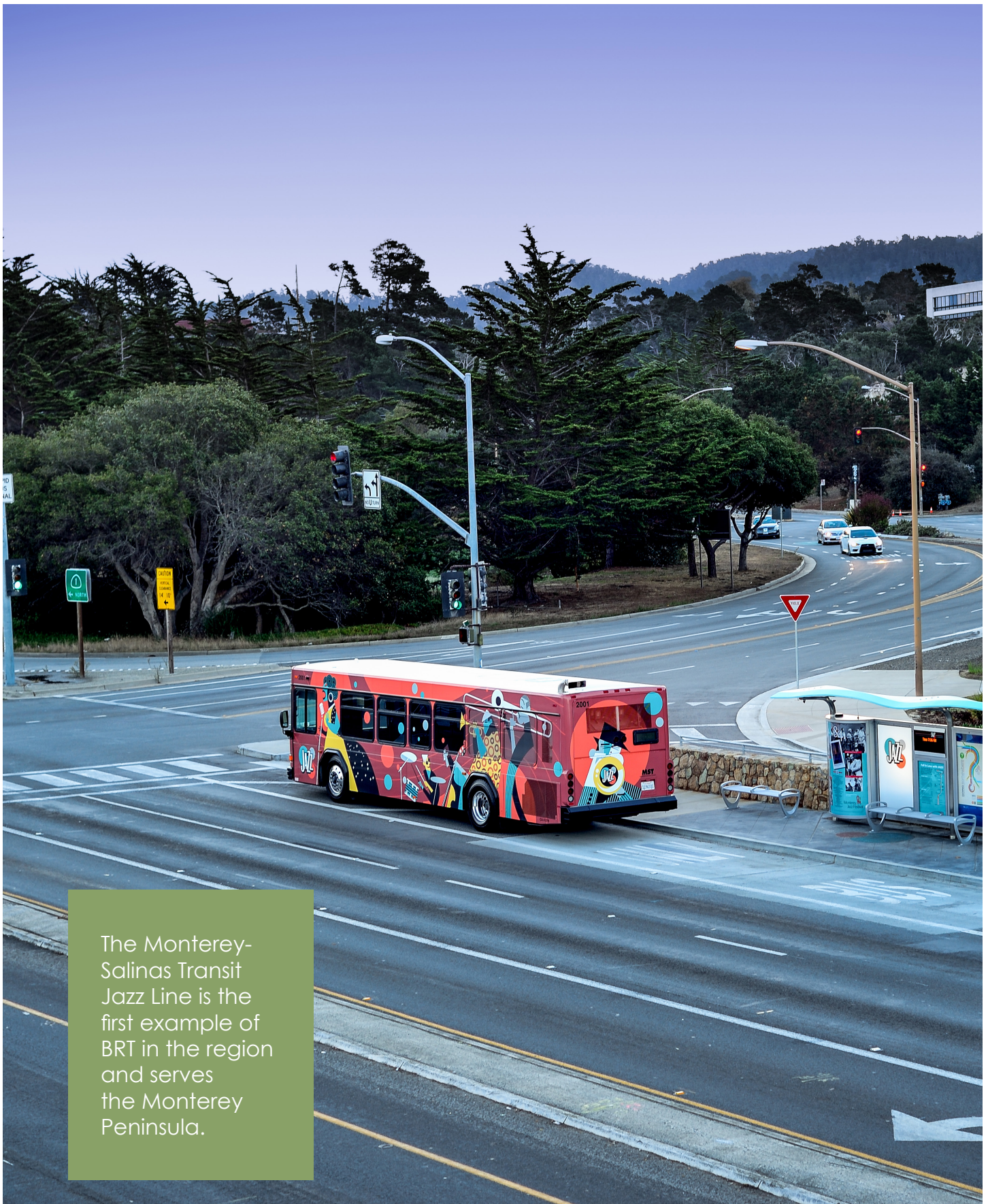
Bus Rapid Transit and Express Service

The 2035 MTP/SCS allocates additional funding to bus transit in the region. Fixed route bus lines in the region are continuously evaluated and adjusted. Additionally, new bus rapid transit (BRT) and express routes are planned in many key regional corridors, including:

- Watsonville – Santa Cruz BRT
- Marina – Salinas Multimodal Corridor
- Monterey BRT (MST study)
- Salinas BRT
- Monterey South County express bus transit enhancements
- Hollister to Salinas and Watsonville

Bus rapid transit is often designed for longer distance and higher speed service, usually on a dedicated facility, and may also include higher frequency service particularly during commuting hours. Many of the new BRT routes in the region have 15 minute peak service planned whereas express buses often have 30 minute or more peak service frequencies. Bus rapid transit also could serve as a precursor to future planned rail services. When a dedicated facility is not available, bus rapid transit lite or express service can still serve the same route with high speeds by utilizing transit priority infrastructure such as queue jumps. Bus rapid transit lite is bus rapid transit without the benefit of a dedicated lane. By utilizing any combination of the other features of BRT, the BRT lite still provides time savings over regular express and local transit services. Features of BRT can include, but are not limited to: dedicated bus lanes, queue jumps, signal prioritization, off-board fare systems, level boarding stations and real-time arrival information systems.

Assembly Bill (AB) 946 (Stone, 2013) authorizes MST and Santa Cruz METRO legislative authority to evaluate bus-on-shoulder solutions to alleviate traffic congestion along state highways similar to other programs implemented throughout the country. Using bus on shoulders is a low cost strategy to improve bus running times and reliability for transit systems.



The Monterey-Salinas Transit Jazz Line is the first example of BRT in the region and serves the Monterey Peninsula.

Expanded Local Service

A system of high frequency local bus services in key corridors will provide both improved local service plus access to BRT and rail services. Some examples of regionally significant local transit service include:

- South County (Monterey) transit enhancements
- UCSC & other bus frequency improvements
- System wide operations funding

Travel by transit offers many benefits to the performance of the regional transportation network in the Monterey Bay Area region. First, transit provides an opportunity for reducing VMT, through shifts from low occupancy modes such as driving alone to a very high occupancy mode of travel. Second, for commute trips, which tend to occur at peak periods of travel demand when congestion is highest, transit service can provide substantial congestion relief. High quality transit service can also provide mobility for both transit dependent and choice riders, and residents and employees in higher density, mixed use areas where auto travel can be impractical.

Commuters are more likely to take transit if they can easily walk or bike from their home or job to a transit stop or station. As a result, walking and cycling infrastructure improvements are often an effective way to support transit use. Good intermodal connections, such as convenient park-and-ride locations, on-board bike racks, secure bicycle parking, safe and pleasant access routes, and shortcuts can enhance the appeal of both non-motorized and transit modes.

Demand Response Service

In addition to the three fixed route bus operators, there are several small demand-responsive public bus and van transit systems operate in the region:

- San Benito County Express
- MST RIDES
- Greenfield Auto Lift
- King City Transit

- METRO ParaCruz
- Community Bridges Lift Line

A full list of providers is included in the Coordinated Plan, described below.

Coordinated Plan

A Public Transit-Human Services Transportation Plan (Coordinated Plan) has been prepared by AMBAG for the tri-county region as required by federal statutes. The Coordinated Plan identifies local transit needs for the elderly, disabled, and low income, and facilitates applications for the FTA Section 5310 grant program. It also includes strategies and activities to address identified gaps in the transit network and achieve efficiencies in service delivery. The Coordinated Plan was adopted by AMBAG in October 2013.

Passenger Rail

Rail projects are an important component of the regional transportation network that will enhance mobility opportunities for the region's diverse population and lead to economic vitality for the region. The planned rail services complement each other and result in reducing auto trips from Highways 1, 101, and 156.

California State Rail Plan

Federal law requires that states develop state rail plans no less frequently than every five years to be eligible for federal funding for high-speed rail and intercity passenger rail programs. The law also encourages states to develop strategies and policies for enhanced passenger and freight rail services that benefit the public. The 2013 California State Rail Plan makes the state compliant with 49 U.S.C. Sec. 22102 concerning state rail plans and state rail administration.

The California State Rail Plan establishes a statewide vision and objectives, sets priorities, and develops implementation strategies to enhance passenger and freight rail service in the public interest. It provides a comprehensive listing of long range investment needs for California's passenger and freight infrastructure and supports the state's goal of developing an integrated, multimodal transportation network.

Amtrak

The only regular rail passenger currently operating in the region is provided by Amtrak, the most popular long distance passenger train in the United States. The Coast Starlight, which connects Los Angeles to Seattle, stops in Salinas, the only Amtrak rail station in the region. This route operates one train in each direction daily. In the future, Amtrak will expand service by offering the Coast Starlight services which will stop at new additional stations in Soledad and King City.

Rail passengers can ride the Amtrak bus to connect to the Capitol Corridor route, which runs daily between San Jose and Sacramento. There are also three round trip connecting bus services between the state Capitol and Monterey County daily. Each major area of Monterey County – the Monterey Peninsula, Salinas, and the South Monterey County cities – is served by this connecting bus service. The Amtrak Capitol Corridor service provides four round trips between San Jose and Sacramento on weekdays and six round trips on weekends. The Capitol Corridor connecting bus service to Monterey County serves Watsonville, Salinas, California State University Monterey Bay (CSUMB), and four locations within the City of Monterey.

Commuter and Light Rail

The Transportation Agency for Monterey County (TAMC) and the Santa Cruz County Regional Transportation Commission (SCCRTC) are working to bring rail service to Monterey and Santa Cruz Counties, so that residents can travel to jobs, education, and entertainment.

Two rail services for Monterey County are planned:

- *Capitol Corridor Extension to Salinas* – An extension of commuter rail service from Santa Clara County to Salinas
- *Monterey Branch Light Rail* – Passenger light rail service on the Monterey Peninsula

The Monterey Branch Line will connect to the planned commuter rail service in Castroville and provide local transit service to planned stations in Monterey, Seaside, Sand City, Marina/CSUMB, and Castroville. As a precursor to the light rail bus

rapid transit is being considered along the same alignment. A less expensive alternative, bus rapid transit will allow transportation agencies to phase in a full light rail system.

In 2012, the Santa Cruz County Regional Transportation Commission (SCCRTC) purchased a rail line extending almost 32 miles from Davenport to Pajaro. One rail service is planned for Santa Cruz County:

- *Santa Cruz Branch Rail Line* – Planned passenger rail and expanded freight service between Santa Cruz and Watsonville

This service will use the existing right of way which requires significant improvements before passenger rail service can operate on the existing tracks. The Monterey Bay Sanctuary Scenic Trail will also share the right of way with the rail line in Santa Cruz County.

Active Transportation

For the purposes of the 2035 MTP/SCS, active transportation refers to bicycling and walking. Walking and bicycling are essential parts of the region's transportation system, are low cost, do not emit greenhouse gases, can help reduce roadway congestion, and increase health and quality of life of residents. Additionally these types of facilities can often be implemented as part of maintenance and operations projects making this kind of investment very cost effective.

As the region works toward reducing congestion and greenhouse gases, walking and bicycling will become more essential to meet the region's future needs. To make active transportation a more attractive and feasible mode of travel for the different users in the region, additional infrastructure improvements need to be made. Given that all trips, including automobile trips, start with walking, it is important to ensure that the sidewalks and streets are accommodating to all users. In all, the 2035 MTP/SCS's active transportation improvements total over \$898 million.

Bicycle and Pedestrian Facilities

When Caltrans and local jurisdictions provide bicycle and pedestrian amenities, they not only are encouraging recreational opportunities but are also providing an alternative to driving. In the region, the RTPAs administer the distribution and use of bicycle and pedestrian funds as provided for under the Transportation Development Act (TDA).

TAMC and SCCRTC provide ongoing bicycle programs covering facilities planning, policy development, education/promotion, and staffing of the respective county Bicycle Advisory Committees. Program efforts are focused on coordination and incorporation of bicycle planning and promotion into all planning activities including general plan development, capital improvement programming, development review, environmental review, and other transportation system management efforts. Some examples of bicycle and pedestrian projects around the region are:

- Monterey Bay Sanctuary Scenic Trail
- Carmel to Pebble Beach bicycle facility
- Bicycle kiosks, lockers, and wayfinding signs
- Sidewalk enhancements
- Bicycle and pedestrian plans

Bicycle Network

A considerable bicycle network exists, particularly in the urbanized portions of the region. Although there is a general lack of continuity in bike lanes striped on the region's street network, progress has been made in planning and funding bikeway improvements. TAMC and SCCRTC are developing a Monterey Bay Sanctuary Scenic Trail. Continued emphasis on improving bicycle routes that safely connect employment centers and residential locations will increase commuter bicycle use. A map of the regional bicycle network is shown in Figure 2-3.

Bike lanes in the region are classified in three categories:

- *Class I Bikeway* – Typically called a “bike path” or “multiuse path,” a Class I bikeway provides bicycle travel on a right-of-way completely separated from any street or highway. Class I bikeways are not for the exclusive use of bicyclists, and can be used by pedestrians, joggers, and other non-motorized users.
- *Class II Bikeway* – Often referred to as a “bike lane,” a Class II bikeway provides a striped lane for one-way travel on a street or highway.
- *Class III Bikeway* – Generally referred to as a “bike route,” a Class III bikeway may include signage or sharrows and provides for shared use with vehicles.

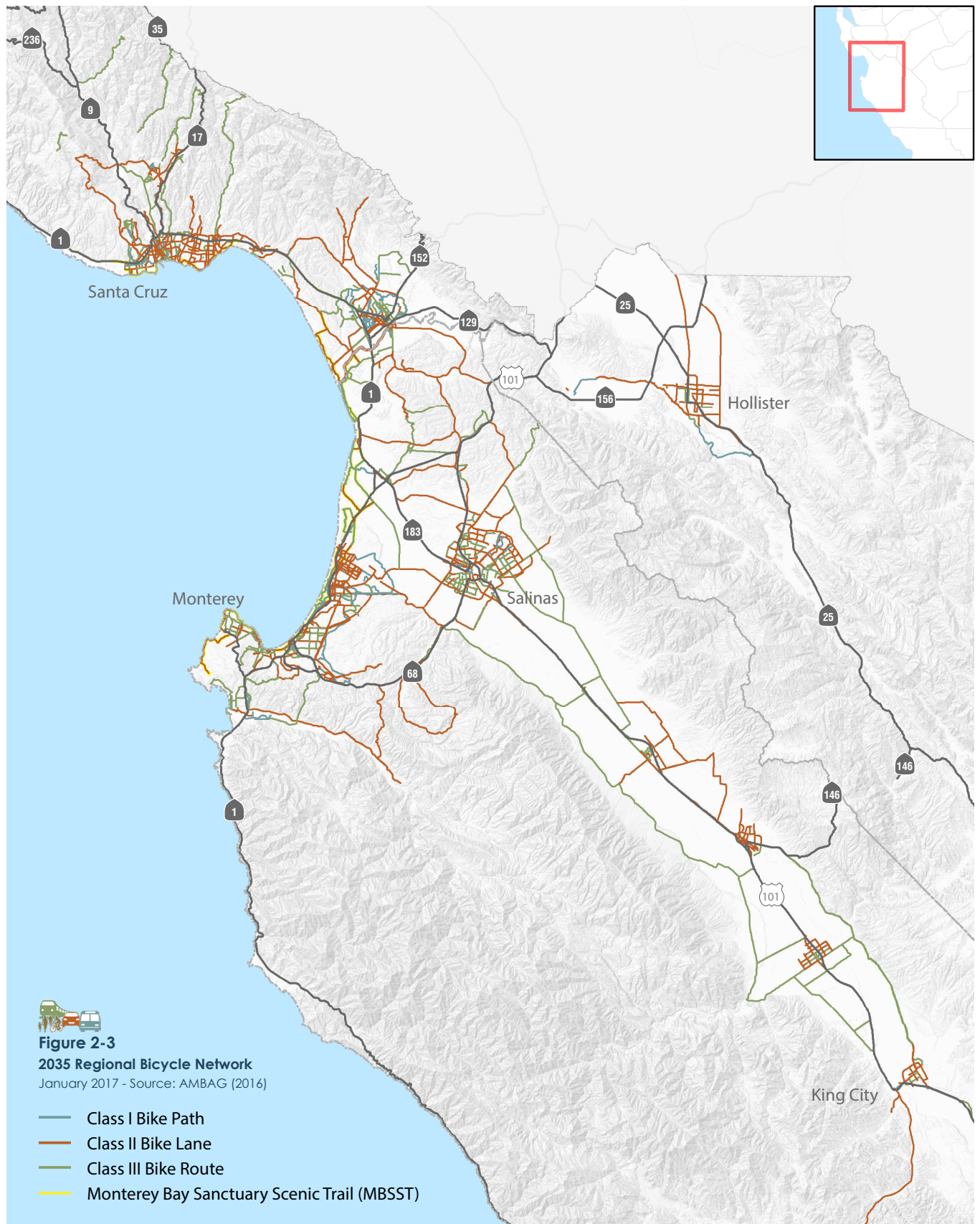
Pedestrian Facilities

Pedestrian travel is a vital part of the transportation, economic and social life of the Monterey Bay Area, and pedestrian amenities — such as appropriately sized sidewalks, crosswalks, curb cuts, landscaping, and benches — are seen as beneficial additions that make communities walkable, friendly, and livable.

Pedestrian facilities including sidewalks, streets, and trails are fundamental to the functioning of Monterey Bay Area neighborhoods. Cities that promote walking in all its forms are promoting healthy neighborhoods and communities. Local jurisdictions are working to achieve an effective pedestrian network by implementing pedestrian infrastructure improvements in conjunction with new and redeveloped streets, and working closely with the public to identify where existing gaps in pedestrian facilities exist. In some areas, local jurisdictions are implementing traffic calming projects to slow vehicular traffic and create more attractive pedestrian environments.

More emphasis is being placed on walking as a viable, inexpensive, nonpolluting, and healthy way to travel. Most pedestrian infrastructure is in the form of sidewalks; however, there are many significant trails in the region. Multipurpose trails are separated from roadways and are usually

Figure 2-3: 2035 Regional Bicycle Network



shared by more than one user type including rollerbladers, bicyclists, skateboarders, pedestrians, horses, and joggers.

Opportunities for additional shared use facilities may be present in the region. For example, Pacific Gas and Electric (PG&E) owns and operates pipelines that distribute natural gas to most communities throughout the region via 12" and 20" pipelines. Many of these pipelines have 25 to 100 foot easements that could be utilized for pedestrian and bicycle paths. Additionally, PG&E has easements throughout the state for electrical transmission lines, some of which have been made into linear greenbelts with bicycle and pedestrian paths.

Complete Streets

The Complete Streets Act of 2008 (AB 1358) requires cities and counties to incorporate the concept of complete streets in their general plan updates to ensure that transportation plans meet the needs of all users of the roadway system. AMBAG supports and encourages implementation of complete streets policies in the 2035 MTP/SCS. The Regional Complete Streets Guidebook, included as Appendix H, was developed by staff from the Transportation Agency for Monterey County, the San Benito County Council of Governments, and the Santa Cruz County Regional Transportation Commission. Regional agencies will work with local jurisdictions as they implement complete streets strategies within their jurisdiction by providing information and resources to support local planning activities. Complete streets must be context sensitive to adjacent land uses in order to function well for diverse roadway users. Recognizing that roadways have primarily been designed to serve the automobile, regional complete streets efforts highlight bicycle and pedestrian access as an essential design objective.

Safe Routes to School

SAFETEA-LU established the Safe Routes to School program to "enable and encourage primary and secondary school children to walk and bicycle to school" and to support infrastructure related and educational projects that are geared toward

providing a safe, appealing environment for walking and bicycling. Safe Route to School programs can play a critical role in eliminating some of the vehicle trips that occur during peak periods to drop off or pick up students by ensuring safe routes to bike or walk to school.

Under the new transportation authorization bill, MAP-21, Safe Routes to School has been combined with other bicycling and walking programs into a new program called Transportation Alternatives. There is less funding available for Transportation Alternatives than for the programs that were consolidated and there is no longer dedicated funding for Safe Routes to School.

Trails

The Monterey Bay Sanctuary Scenic Trail (MBSST) is planned to be a multiuse recreation and interpretive pathway that links existing and newly established trail segments into a continuous coastal trail around the Monterey Bay. The MBSST Final Master Plan and Environmental Impact Report was adopted by SCCRTC in November 2013. The TAMC MBSST Final Master Plan was adopted in January 2008.

In addition to providing bicycle and pedestrian facilities, interpretive features educate users of the trail about the natural and cultural resources of the Monterey Bay National Marine Sanctuary and its environs. The trail is located and designed so visitors can explore and enjoy the coastal communities of Santa Cruz and Monterey Counties, while respecting residential, agricultural, and environmentally sensitive surroundings along the trail.

The approximately 110 mile coastal trail corridor provides public access along Monterey Bay from Santa Cruz to Monterey. The trail is envisioned for pedestrians and bicyclists, with each trail section dictated by natural landforms and features, existing land uses, and desired destinations. The project links existing local trails, bridging the gaps between them. Sections of the MBSST network will be included in the California Coastal Trail, a 1,200 mile hiking trail which will eventually extend the entire length of the California Coast.

Complete Streets - Streets for All Users

Complete streets are streets for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. Complete streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from bus stops and train stations.

Making these travel choices more convenient, attractive, and safe means people do not need to rely solely on automobiles. They can replace frustrating trips in their cars with bus rides or heart healthy bicycle and walking trips. Complete streets improves the efficiency and capacity of existing roads too, by moving people in the same amount of space – think of all the people who can fit on a bus or streetcar versus the same amount of people each driving their own car. Getting more productivity out of the existing road and public transportation systems is vital to reducing congestion.

Complete streets are particularly prudent as more communities are tightening their budgets and looking to ensure long term benefits from investments. An existing transportation budget can incorporate Complete streets projects with little to no additional funding, accomplished through re-prioritizing projects and allocating funds to projects that improve overall mobility. Many of the ways to create more complete roadways are low cost, fast to implement, and high impact.

Source: Smart Growth America, <http://www.smartgrowthamerica.org/>





Wide sidewalks with amenities not only makes the street more usable for all modes it also improves the attractiveness of the street.



Active transportation includes walking. Pedestrian crossings with textured pavers and short crossing distances improves safety.



Complete streets does not exclude planning for automobiles, rather it incorporates improvements that make it easier for all modes to coexist.



Active transportation includes bicycling. Separated facilities increase safety and therefore increase the possibility that people of all ages will use alternate modes of transportation.



Complete streets attract more people to get out of their cars. As people walk to their destination they are more likely to patronize other businesses along the way.



Active transportation includes bicycling to get to the bus. Accommodations on buses for bicycles is important so that people have more options to get to and from bus stops.

The development of the trail has been and will continue to be coordinated with appropriate agencies such as the State Coastal Conservancy, the California Coastal Commission, resource agencies and local jurisdictions. Refer to the MBSST Master Plans for more information.

Aviation

Airports within the region function for movement into and out of the region for both people and goods. The major passenger airport in the region is the Monterey Regional Airport.

California Aviation System Plan

The California Aviation System Plan is a multi-element plan prepared by the Department of Transportation (Caltrans), Division of Aeronautics, with the goal of developing and preserving of airports responsive to the needs of the state. There are 14 public use airports in the Central Coast Region, the planning region for the California Aviation System Plan. This Plan considers the following Monterey Bay Area airports to be the region's highest priority facilities for enhancement:

- *Hollister Municipal*
- *Watsonville Municipal*
- *Mesa Del Rey Municipal*
- *Salinas Municipal*
- *Marina Municipal*

Enhancements to these airports would improve regional and state system capacity and safety.

Monterey Bay Area Airports

The region has six publicly owned civil aviation airports:

- *Monterey Regional*
- *Salinas Municipal*
- *King City Municipal (Mesa del Rey)*
- *Marina Municipal*

- *Watsonville Municipal*
- *Hollister Municipal*

Of these six, only the Monterey Regional Airport has scheduled air carrier service.

In addition to the publicly owned airports, several private airports operate in the region. Of these, the Frazier Lake Airpark is the only one that allows public use. The remainder of the privately owned airports are used for agricultural, business, and private purposes.

In addition, there are currently two operational military airfields in the Monterey Bay Area:

- *Camp Roberts Army Airfield and Heliport*
- *Fort Hunter-Liggett Army Heliport.*

Monterey Regional Airport

Monterey Regional Airport (MRY) has two parallel runways with the longest at 7,598 feet. There is a control tower and instrument landing capability. This airport is the major regional airport, with commercial freight, passenger traffic, military traffic, and general aviation needs. The facility is located north of SR 68 (Monterey-Salinas Highway) and east of the City of Monterey. The 498 acre airport is the only airport in California operated as a self-governing district, the Monterey Peninsula Airport District. In 2012, five commercial airlines served the airport for a total of 196,268 enplanements.

Primary air-carrier airports with annual enplanements over 10,000 are required to have an Airport Ground Access Improvement Program. TAMC will develop this program in coordination with AMBAG. State Routes 1 and 68 provide the primary ground access to the airport for both people and freight. MST provides public transit service from Monterey and Salinas to the airport, during daytime hours on Mondays through Saturdays, only. An airport limousine service and taxicabs also serve the airport. Many local hospitality industries provide their own shuttle services for guests. Additional information on airport access can be found in the TAMC Regional Transportation Plan.



Most of the local airports are small and do not have scheduled air carrier service (Watsonville Municipal Airport).



Much of the region's agricultural goods are currently transported by truck, though the MTP/SCS looks towards converting these trips to rail in the long term.

Salinas Municipal Airport

Salinas Municipal Airport is located three miles southeast of the City of Salinas on a 763 acre site. It has four runways with the longest at 6,004 feet. There is a control tower and instrument landing capability. Operated for general aviation purposes by the City of Salinas, 77,745 general aviation operations took place in 2011, with 197 based aircraft.

Mesa Del Rey Municipal Airport in King City

King City Municipal (Mesa del Rey) Airport is located north of King City on 214 acres. In 2008, it handled 7,860 general aviation operations with one 4,500 foot runway. There is neither a control tower nor instrument landing capability at this airport. A publicly owned airport, it is operated by the City of King for general aviation purposes and has 31 based aircraft. The airport is home to the Sean D. Tucker Academy that provides in-depth study of aircraft control. This is an advantage for the Mesa Del Rey Airport, which could prove to be beneficial to the patronage of the airport if widely promoted.

Marina Municipal

Marina Municipal Airport is located north of Reservation Road in the City of Marina on 845.5 acres of the former Fritzsche Army Airfield. This general aviation airport had an estimated 40,150 operations in 2012 on its one, 3,485 foot runway. The regional Airport Surveillance Radar is located northwest of this airport.

Watsonville Municipal

Watsonville Municipal Airport is located on a 330 acre site to the northwest of Watsonville. In 2013, there were an estimated 103,000 general aviation operations on two runways, the longest at 4,500 feet. There is no control tower but the airport has instrument landing capability. Operated by the City of Watsonville, this is the sole public use airport in Santa Cruz County, and is classified as a general transport airport serving general aviation and business jets.

Hollister Municipal

Hollister Municipal Airport is located northwest of the City of Hollister on 343 acres. It services

168 aircraft and there were an estimated 52,560 operations in 2012. In addition to the 6,350 foot runway, Hollister Municipal also has a 3,150 foot runway. There are no control tower or instrument landing capabilities at this airport. A publicly owned airport, it is operated by the City of Hollister for general aviation purposes.

Frazier Lake Airpark

Frazier Lake Airpark is the only privately owned airport in the region that is open to the general public. It is located 4 miles northwest of Hollister Municipal Airport. Frazier Lake Airpark has a 2,500 foot grass turf runway and a 3,000 foot water runway for sea planes. In 2011, there were 7,665 general aviation operations, and 91 based aircraft.

Airports Economic Impact Study

The Airports Economic Impact Study prepared by AMBAG in 2003, was designed to evaluate the economic impacts of each of the Monterey Bay region's six public airports on the local vicinity served by the airport and to provide a regional picture of the combined airports importance to the three county economy. The total direct, indirect and induced economic benefit of the six regional airports was estimated to be \$1.38 billion annually. The Monterey Bay Area's airports play an important role in the total regional economy, providing service to agriculture, tourism, government, and other business interests throughout the region. AMBAG will work with airport stakeholders to update the Airports Economic Impact Study.

Regional Airport System Plan

The Regional Airport System Plan (RASP) was completed by AMBAG in 2006. The RASP projects a moderate growth rate in aircraft operations as a result of increased activity in general aviation and a continuation of growth by air taxi services. Additionally, projections recently prepared by Monterey Peninsula Airport District (MPAD) for the draft Monterey Regional Airport Master Plan forecast continued increasing passenger enplanements over the next 20 years. With availability for increased operations, the existing general public airports in the region could absorb aircraft from other regions.

Goods Movement

The Central Coast is well known for the variety of agricultural products grown here. The Salinas Valley is commonly referred to as “America’s Salad Bowl” due to the sheer amount of produce grown and exported to markets in other parts of the country and elsewhere.

Strawberries and other berries are key crops throughout the region, and are the number one crops by value in Monterey and Santa Cruz Counties. See Table 2-1 for a list of the region’s top agricultural products by county. Lettuce, wine grapes, broccoli, and nursery products also are important agricultural products for the Central Coast. The region is a key producer of wine. Monterey County, for example, produced grapes for wine valued at \$238 million in 2008. Both Monterey and San Benito Counties are major producers of field crops, fruits and nuts, vegetable/row crops, and livestock.

The agricultural industry is critical to the success of the regional economy and its health partly depends on the ability to move goods not just throughout the region but outside of the region. Agriculture relies on the connectivity and condition of railways and local roads that connect crop production with buyer markets via major state routes and US 101. Therefore, it is necessary for the health of the region that all the major roads, highways and railways

carrying goods to and from crop production locations (such as US 101, SR 46, SR 129, SR 152, and SR 156) are maintained to support efficient delivery and shipment of goods. Figure 2-4 illustrates the Goods Movement Network. A summary of the various plans and studies that document the importance of goods movement to the region and the efforts to improve the delivery of agricultural products to consumer markets is discussed in this section.

The majority of the goods in the region are delivered to buyer markets via the highway and road network rather than railways. However, there is a recognized need for transitioning the Central Coast’s truck freight to rail freight in order to alleviate pressure on the region’s highways and roads as well as to reduce congestion and increase safety for all users of those roads.

Central Coast Coalition

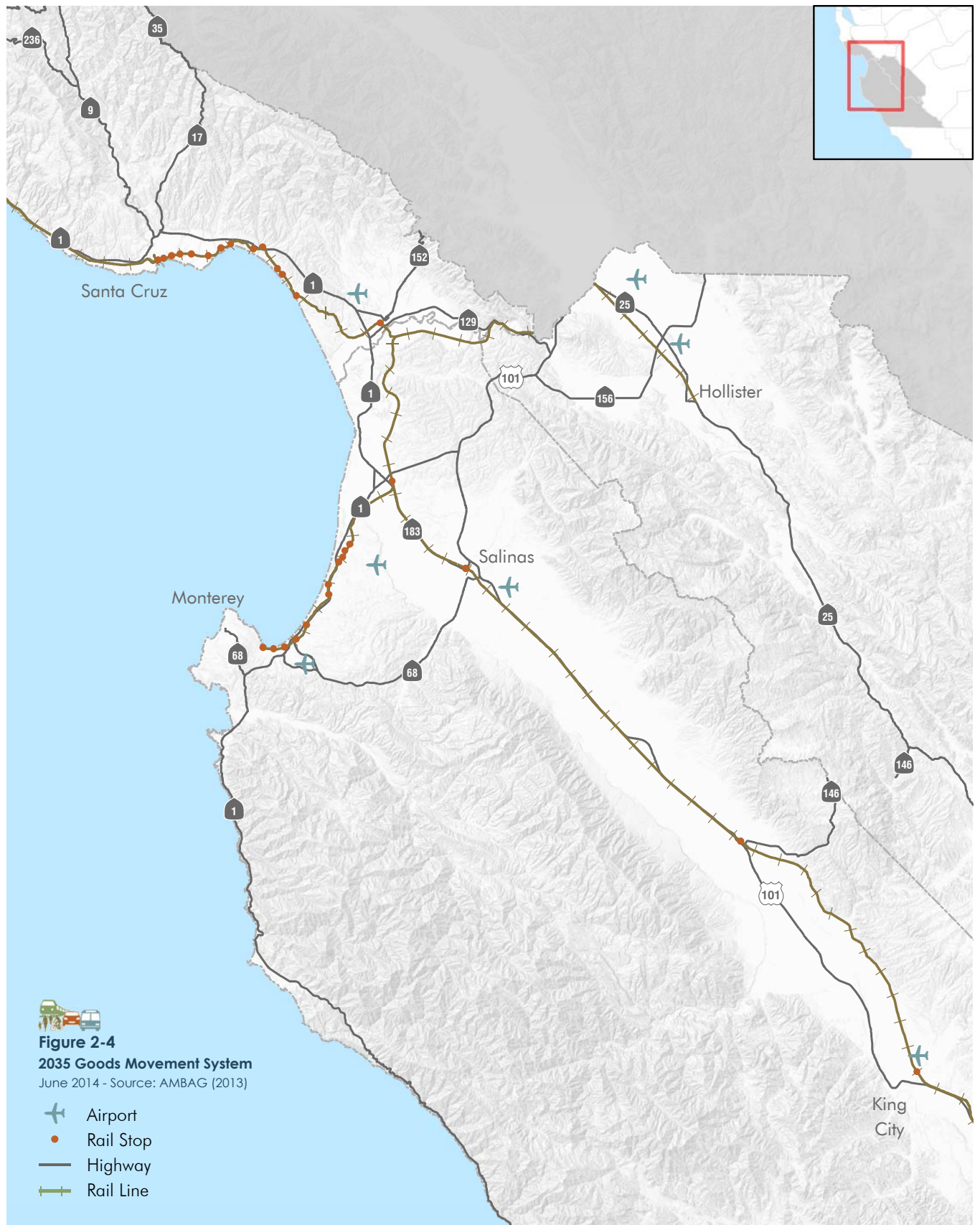
The purpose of the Central Coast Coalition is to increase the awareness of the US 101 corridor along the central coast as a major economic asset to the regions, the state and the nation, and to secure investments for its improvement. The Central Coast Coalition is comprised of the Santa Barbara Association of Governments, Council of San Benito County Governments, Transportation Agency of Monterey, San Luis Obispo Council of Governments, Santa Cruz County Regional Transportation Commission, and AMBAG. The group has been meeting since 2010 and has worked together to develop and distribute information about the corridor including but not limited to improvement needs, funding options and strategies, as well as economic impacts and benefits. Additionally, the group seeks out funding for improvements within the corridor, coordinates with Caltrans District 5 to develop projects, and seeks support from public and private partners to raise awareness about the importance of the corridor.

Table 2-1: Top Regional Agricultural Crops (Millions/Year)

County	Top Crops (Millions)
Monterey	Berries, Strawberries, Fresh Market (\$746.1)
	Lettuce, Romaine (\$483.3)
	Lettuce, Head (\$436.0)
San Benito	Vegetables, Unspecified (\$39.9)
	Lettuce, Bulk Salad Products (\$21.1)
	Nursery Products, Misc (\$20.4)
Santa Cruz	Berries, Strawberries, Fresh Market (\$172.6)
	Berries, Raspberries (\$104.3)
	Flowers Cut, Unspecified (\$60.0)

Source: AMBAG, Central Coast California Commercial Flows Study, 2012

Figure 2-4: Goods Movement System



California Freight Mobility Plan

Caltrans is currently developing the California Freight Mobility Plan, an update to the Goods Movement Action Plan, issued in two phases in 2005 and 2007. Similar to the Goods Movement Action Plan, the California Freight Mobility Plan will address current freight conditions, identify important trends, and respond to major issues in goods movement across all modes and regions of California. In addition, the updated plan will respond to a number of contemporary issues in terms of community impacts, trucking, new legislation, regional differences and linkages, and greenhouse gas emissions reduction strategies. The California Freight Mobility Plan is scheduled to be finalized by December 2014.

Commercial Flows Study

Over the next several decades, the Central Coast region can expect to see significant increases in freight movement due to both population increases and a continued expansion of the region's agricultural production. As a result of this demand for freight by both the local population and industries, a focus on enhancing the efficiency

and safety of the region's goods movement system is critical to supporting the economic health of the region and the quality of life for its residents.

To respond to this challenge, six major agencies across the five counties – comprising the California Central Coast region, from Santa Cruz County in the north to Santa Barbara County in the south – partnered with Caltrans District 5 to prepare this study of freight flows, issues, needs, and deficiencies in the region. The recommendations that came out of the 2012 Commercial Flows Study were the result of engaging private and public sector stakeholders in the Freight Actions Strategy Taskforce. The recommendations include operational improvements and capacity increases to the major corridors that move freight traffic.

Salinas Valley Truck-to-Rail Intermodal Facility Feasibility Study

One of the key factors in maintaining the competitiveness of the Salinas Valley agricultural industry is to provide additional methods of shipping products to important markets. The main



markets are primarily located in the eastern United States. Given upward pricing pressure on the trucking industry due to rising fuel costs, as well as safety concerns, and problems with truck traffic congestion, freight and transportation stakeholders are looking for alternatives for transporting goods. The rail system is one of the main options available.

The purpose of the Truck-to-Rail Study, prepared by AMBAG in 2011, was to analyze the potential for building and operating a truck-to-rail intermodal facility to support the movement of perishable agricultural products from this region. This study builds off a previous study commissioned by the Grower-Shipper Association of Central California in Fall 2008 which showed there was both a desire on the part of the growers/shippers in the Salinas Valley to expand methods of shipping from truck only and that rail would be a cost competitive option for shippers.

This study also analyzed the impact of the significant number of trucks leaving the Salinas Valley has on air quality, roadway congestion, safety and quality of life in this region. Using modeling software, this study determined that greenhouse gas emissions could be reduced by as much as 59 percent by switching from truck to rail freight and that other pollutants could be reduced by an average of 35 percent. The study identified two potential locations in Chualar and Gonzales for a truck-to-rail intermodal facility based on operations logistics and cost feasibility. A preliminary environmental assessment of the two sites was also prepared.

US 101 Corridor Freight Study

The primary freight corridor in the Monterey Bay Area is US 101. It is the main north-south route between Los Angeles and San Francisco. The US 101 corridor supports the economic vitality of the Central Coast area as a major goods movement corridor and is a key commute route.

AMBAG was awarded a Caltrans Partnership Planning grant in 2013 to identify short term and long term strategies to improve freight mobility and transportation operations along US 101 from San Benito County through Santa Barbara County. The

US Route 101 Freight Study will assess opportunities for improved freight operations, safety, and efficiency, and will identify funds for recommended improvements. It will build off of the aforementioned studies which identify the commodities, goods movement patterns, and intermodal station feasibility to analyze opportunities for freight. Final recommended improvements will provide better connectivity between adjacent communities. The study is scheduled to be completed by 2016.

Transportation Management Programs

Transportation Demand Management (TDM) and Traffic Systems Management (TSM) are two types of techniques used to improve the efficiency and effectiveness of the transportation system. In TDM, the focus is on changing peoples' travel behavior; in TSM, system operational and/or service improvements are implemented to facilitate traffic flow. When successfully employed, these techniques decrease travel demand and improve operations and/or services prior to committing to significant investment for new supply or new capacity. Planning for TDM and TSM strategies requires looking at the transportation system as an interconnected whole in order to reduce GHG emissions.

Demand Management

TDM strategies reduce vehicular demand and thereby congestion, particularly during peak periods. In total, the 2035 MTP/SCS allocates over \$46 million to TDM strategies.

Ridesharing

Ridesharing strategies include vanpool services for larger employers and rideshare matching services. The implementation of ridesharing programs and projects, such as providing vanpool services to commuters, is an effective strategy leading to reduction of the number of vehicle trips which helps to meet the GHG targets.



AMBAG subsidizes and manages the Regional Vanpool Program. The funding provides a monthly subsidy of \$350 per vanpool for the first 12 months of operation. The subsidy encourages more workers to join a vanpool because of the reduced cost, thereby reducing emission and providing employment opportunities to individuals who cannot afford to own and operate a vehicle or do not have a driver's license.

As of April 30, 2014, the program had started ninety-five new vanpools, reducing an estimated of 22,935,080 vehicle miles traveled and removing 915 vehicles from the roads in the region. Sixty-three vanpools serve the agricultural industry. Under this Plan, AMBAG will continue to expand vanpool service - specifically to agricultural workers - to provide a safe, flexible, and affordable means of transportation.

Vanpools

Over the years, AMBAG has recognized that there is a limited set of transportation options for individuals who would like to use sustainable modes of transportation, or cannot afford the cost of driving a car. Since 2009, the Monterey Bay region has benefited from the regional vanpool program operated by AMBAG. The program provides a viable and cost efficient rideshare opportunity to employees and students who live, work, or attend college in Monterey, Santa Cruz, and San Benito Counties. The program also provides a sustainable transportation solution for the region's unique land use, demographic and employment characteristics. Moreover, the regional vanpool program fills an important market niche by helping traditionally underserved population groups (including but not limited to low income and minority population, rural communities, agriculture workers, etc.).

The agricultural industry is a major employer in the region, currently comprising over 18 percent of all employment. Agricultural workers represent a unique sector that is particularly well suited to vanpools. They often work irregular hours, at multiple worksites, and/or for multiple employers. The seasonal and remote nature of work destinations makes fixed route transit service impractical because average one-way commute distances exceed 20 miles and farm workers often need to travel to multiple work locations within one work day. The regional vanpool program provides agricultural employees with a safe and affordable form of transportation, thus providing flexibility and increased employment opportunities.

Telecommuting

TDM investments aim to reduce peak hour congestion by promoting flexible work schedules and telecommuting. Flexible work schedules allow employees to work fewer days in exchange for longer hours on the days they do work. Telecommuting has increased dramatically over the past decade and nearly six percent of all workers in the Monterey Bay Area telecommute most of the time, and an even greater number telecommute at least one day per month.

Systems Management

TSM increases the productivity of the existing multimodal transportation system, thereby reducing the need for expensive system expansion. TSM relies in part on intelligent transportation system (ITS) technologies to increase traffic flow and reduce congestion. This 2035 MTP/SCS dedicates nearly \$23 million to TSM projects and programs.

Regional ITS Architecture

The Central Coast Intelligent Transportation Systems Architecture and Implementation Plan, prepared by Caltrans in 2010, establishes a framework for the regional integration of transportation systems. It not only looks within the MPO boundaries, but strategically addresses integration between MPO's and with Caltrans from the broader Central Coast perspective.

AMBAG continues to maintain, revise, and validate, as needed, the Central Coast Regional ITS Architecture in consultation with all regional agencies including but not limited to the three RTPAs and Caltrans. ITS projects to be implemented over next 25 years are described in the project lists contained in Appendix C.

Transportation System Management Strategies

In the Monterey Bay region, TSM efforts will help improve the efficiency of the existing transportation system and help the region meet its GHG reduction targets. See Table 2-2 for a summary of regional TSM strategies and associated benefits.

Future Transportation Technologies

There are a variety of projects in the Plan that utilize new technologies such as real time transit information and new detection software for lights. However, while these technologies are new, they are widely used and not necessarily emerging. Transportation plans must also be responsive to emerging technologies that make existing modes

more efficient and to new transportation modes that better address the needs of a changing society. Technology will lead to improvements in how transit and transportation infrastructure operates in the future, and innovative designs and passenger amenities will help make transit attractive to new market segments. While this Plan does not include technologies such as autonomous cars or personal rapid transit, it recognizes that these technologies are emerging. As projects that incorporate new emerging technologies are proposed by local jurisdictions to the transportation planning agencies and start to become more widely adopted, AMBAG will consider and potentially incorporate them into future Metropolitan Transportation Plans.

Table 2-2: TSM Strategies

Strategy	Benefit
Incident Management	Reduces incident related congestion
Ramp Metering	Alleviates congestion and reduces accidents at on ramps and interchanges
Traffic Signal Synchronization	Minimizes wait times at traffic signals
Traffic Signal Preemption	Improves operational efficiency of transit and allows better service of emergency vehicles
Advanced Traveler Information	Provides real-time traffic conditions, alternative routing, and transportation choices
Improved Data Collection	Monitor system performance
Transit Automatic Vehicle Location (AVL)	Enables monitoring of transit vehicles and ensures on time performance

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3

Financial Plan



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Introduction

The financial plan identifies how much money is available to support the region's surface transportation investments, including transit, highways, local road improvements, system preservation, and demand management goals. It also addresses the need for investment in goods movement infrastructure. Improving ground access in and around major goods movement facilities and enhancing major highways and public transit are critical to maintaining the health of the Monterey Bay Area's economy. The 2035 MTP/SCS calls for various revenue sources for implementing a program of infrastructure improvements to keep freight and people moving.

The 2035 MTP/SCS includes reasonably available revenue sources to supplement existing transportation dollars. The Monterey Bay Area's financially constrained plan includes a core revenue forecast of existing local, state, and federal sources along with funding sources that are reasonably available over the time horizon of the 2035 MTP/SCS. The financial plan also includes action steps to obtain the revenues necessary for implementing the region's transportation vision.

Currently there are considerable challenges associated with financing transportation investments. The Plan highlights the importance of finding new and innovative ways to pay for transportation, including the ever expanding backlog of investment needs just to maintain the existing transportation system.

Revenue & Expenditure Categories

The 2035 MTP/SCS is based on existing and reasonably available revenues. The existing revenues identified are those that have been committed or historically available for the building, operation, and maintenance of the current roadway and transit systems in the Monterey Bay Area. Essentially, these revenues are existing transportation funding sources projected to 2035. Additionally, the region assumes new sales tax measures in Monterey and Santa Cruz counties as reasonably available funds.

Financial Assumptions

The financial forecasts in the 2035 MTP/SCS are based on reasonably foreseeable revenues. The projections are calculated using a combination of historical averages, current trends, and/or state and federal actions.

Actual revenues will vary from year to year. The financial projections and estimation methods used in the 2035 MTP/SCS were developed collectively with transportation planning agencies in the Monterey

Bay Area including AMBAG, the Transportation Agency for Monterey County, the Santa Cruz County Regional Transportation Commission, the San Benito County Council of Governments, the California Department of Transportation (Caltrans), Monterey-Salinas Transit, the Santa Cruz County Metro Transit District, the three Counties, and 18 cities.

Year of Expenditure (YOE)

The Safe Accountable Flexible Transportation Equity Act – a Legacy for Users (SAFETEA-LU) requires regions to escalate revenue sources and project costs to reflect “year of expenditure dollars” (YOE). The rationale for this rule is to present a more accurate picture of costs, revenues, and deficits associated with the long range plan. Table 3-1 shows projected revenue in today’s dollars as well as in escalated dollars. The text below describes each revenue source using today’s dollars.

Revenue Sources

State and federal planning regulations require the development of a revenue constrained plan. The Financial Plan is based on current and reasonably available sources and levels of federal, state, and local transportation revenue, projected out to the year 2035. Revenue forecasts are thus a key part of the 2035 MTP/SCS development. A full list and description of funding sources is included in Appendix B.

The major sources of revenue for transportation can be divided into three categories: federal, state, and regional/local.

Federal Revenues

With the passage of the Intermodal Surface Transportation Efficiency Act in 1991 and its successors, the 1998 Transportation Equity Act for the 21st Century (TEA 21), and SAFETEA-LU, nationwide transportation funding appeared to stabilize. However, federal transportation bills must be reauthorized by Congress to provide a predictable source of federal funding for projects and all federal funding is subject to the annual budget process and congressional appropriations.

For some years after SAFETEA-LU expired Congress kept extending the Bill without updating priorities for spending or grant allocation formulas. On July 6, 2012 President Obama signed into law a new two year transportation authorization, entitled Moving Ahead for Progress in the 21st Century (MAP-21). The first long term highway authorization enacted since 2005, MAP-21 creates a streamlined, performance based and multimodal program to address the challenges facing the U.S. transportation system.

Federal revenue sources for the region total just under \$1.1 billion, 14 percent of the region’s total forecast revenue through 2035. The region qualifies for federal revenue from almost twenty different programs. However, just two of these programs constitute 43 percent of all federal revenue: the Regional Surface Transportation Program and the Urbanized Area Formula Program (Section 5307). The major revenue sources are detailed below.

Regional Surface Transportation Program

The Regional Surface Transportation Program (RSTP) represents the most flexible federal fund source available for local uses. Funds can be used for projects on any Federal-aid highway (ranging from national highways to city arterials), rural minor collectors, bridge projects, transit capital projects, and bus facilities.

Eligibility for use of RSTP funds have been expanded over the years to include environmental provisions, modification of sidewalks to meet Americans with Disabilities Act requirements, and infrastructure based intelligent transportation systems capital improvements. The region forecasts over \$223 million from this federal program over the course of the next 25 years.

Urbanized Area Formula Program (Section 5307).

Section 5307 is the original federal transit assistance program for transit operators in urbanized area with a population of 50,000 or more. Federal Transit Administration (FTA) Section 5307 block grants are apportioned annually to urbanized areas through a complex formula

The Gas Tax and the Highway Trust Fund

The federal government funds transportation projects and programs in part through taxes and fees related to use of the transportation system. The Highway Revenue Act of 1956 tied the gas tax to transportation projects through the Federal-Aid Highway program. The 1956 act created a dedicated transportation funding account, the Highway Trust Fund (HTF). In the early 1980s, Congress expanded the definition of federal highways and created new programs to address transit infrastructure as well as established a Mass Transit Account within the trust fund.

Since 1956, Congress has taken gradual steps to increase the gas tax and diversify the taxes and fees associated with funding the transportation system. Congress has traditionally counted on ever increasing gas tax revenues generated from ever increasing traffic volumes to keep up with the need for transportation funding. However, mileage driven per person has hit a plateau in recent years and improvements in fuel efficiency are slowing fuel consumption. During the recent recession, gas tax receipts fell well below funding levels authorized in the legislation. Since fiscal year 2008, Congress has transferred \$34.5 billion from the Treasury to the Highway Trust Fund to address shortfalls. In its most recent estimates, the Congressional Budget Office (CBO) projected the fund will reach a shortfall before the end of 2014. The Mass Transit Account remains solvent today, though its long term health is also believed to be in jeopardy. The current funding approach is unsustainable and most industry observers agree new sources of funds for transportation projects are essential.

Source: Transportation for America, "Transportation 101: An Introduction to Federal Transportation Policy," <http://t4america.org/docs/Transportation%20101.pdf>



weighted by population density and revenue vehicle miles, or rail miles, if applicable.

For urbanized areas with populations less than 200,000, funding may be used for either capital or operating costs at local option and without limitation. Local match requirements vary depending on the use of 5307 funds.

Operations require a 50 percent federal, 50 percent local match; and capital acquisitions and associated capital maintenance items are allowed at a 80 percent federal, 20 percent local match rate. If they choose, operators can use Section 5307 funds for planning purposes. The region forecasts nearly \$234 million from this federal program through 2035.

State Revenues

State revenue sources total over \$1.8 billion, or 24 percent of the region's total forecast revenue for the life of the Plan. Of the state funding sources 85 percent comes from two programs – State Highways Operation and Protection Program (SHOPP) and the Regional Share State Transportation Improvement Program (STIP). The major revenue sources are detailed below.

State Highways Operation and Protection Program

The State Highways Operation and Protection Program includes state highway rehabilitation, traffic safety, seismic safety, and traffic operational improvements. The SHOPP, a four year program, is adopted separately from the State Transportation Improvement Program. The Rehabilitation and Safety and Other Highway Construction elements previously included under the STIP are incorporated under the SHOPP.

New projects for the SHOPP are given priority and programmed according to rehabilitation, safety and operational needs. No new project is programmed unless Caltrans has a completed project study report (PSR) or equivalent document identifying a specific project scope and estimated cost. Funding from this source is forecasted to total over \$1.2 billion for the life of the 2035 MTP/SCS.

State Transportation Improvement Program

The State Transportation Improvement Program (STIP) was significantly changed with the enactment of Senate Bill (SB) 45 in 1997. SB 45 simplifies the transportation programming process by combining seven previous funding categories into one pot of funds which is then divided into two categories. Prior to its division, however, Caltrans support, planning, and maintenance and rehabilitation needs are taken from the total. The remaining funding is then divided into the two categories: Regional Improvement Program and Interregional Transportation Improvement Program.

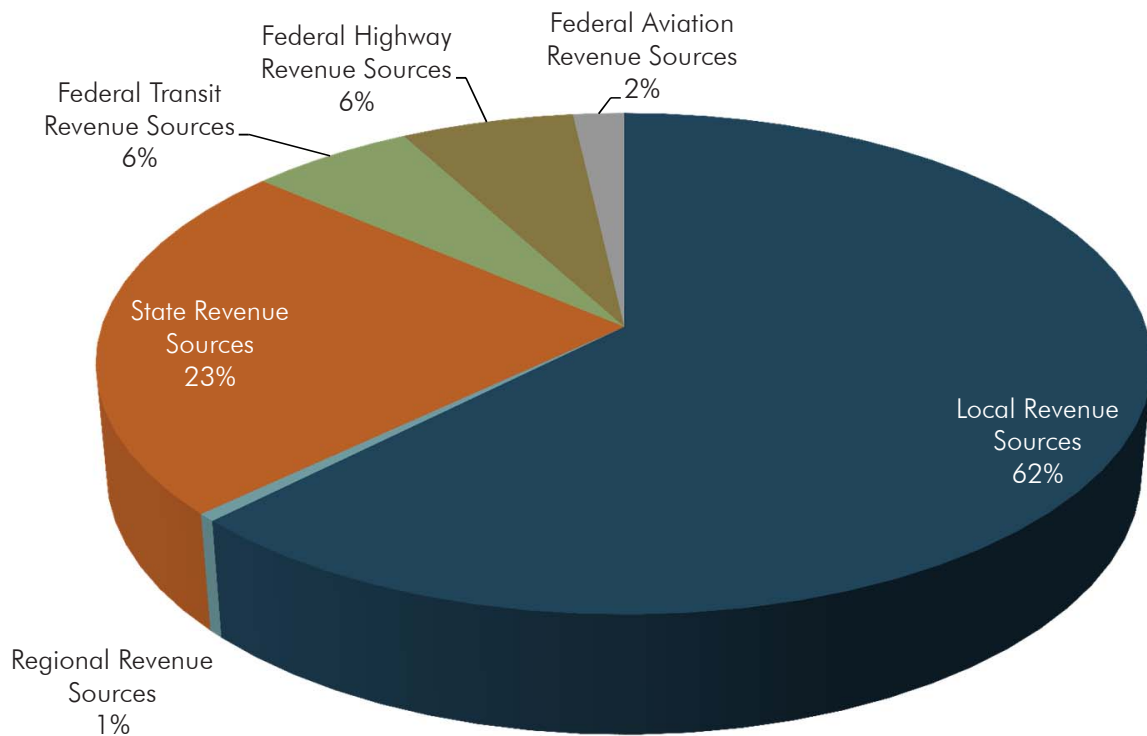
Of funds available for programming in the STIP, 75 percent is allocated to regional transportation planning agencies for the selection of projects of regional significance in the Regional Transportation Improvement Program. The 25 percent remaining is used as the interregional share and is limited to state highway, intercity passenger rail, mass transit guideway, or grade separation projects that facilitate the interregional movement of people and goods.

At least 60 percent of the interregional share (15 percent of the STIP) must be programmed for projects on the interregional system. At least 15 percent of that 60 percent (9 percent of the interregional program; 2.25 percent of the STIP) must be for intercity rail. The remaining 40 percent of the interregional share is designated for interregional movement of people and goods. The Monterey Bay Area forecasts over \$237 million in revenue from the Regional Share STIP category and \$65 million in revenue from the Interregional Share STIP. The 2035 MTP/SCS projects are consistent with the STIP fund estimate, Interregional Transportation Improvement Program, and Federal Transportation Improvement Program.

Active Transportation Program

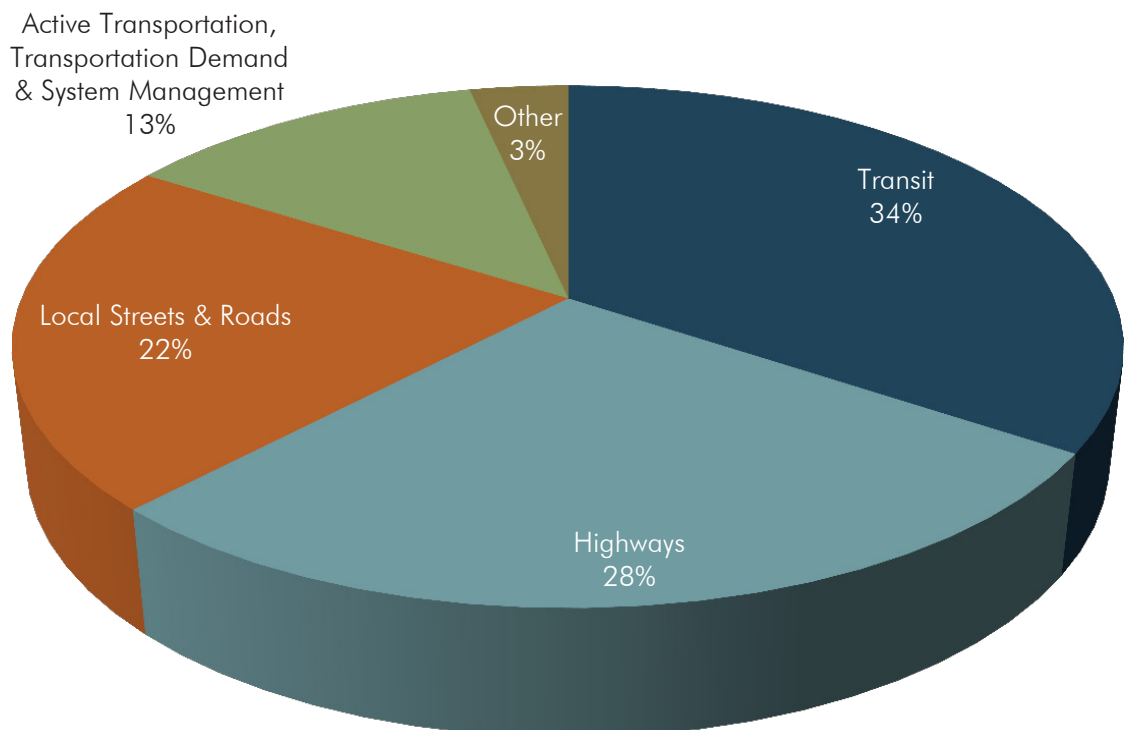
MAP-21 has consolidated many of the dedicated funding streams for active transportation projects (Transportation Enhancements, Safe Routes to School, and Recreational Trails) under a single new program: the Transportation Alternatives Program (TAP). This equated to roughly a 30 percent cut

Figure 3-1: Total Revenue by Source



Source: AMBAG, SBtCOG, SCCRTC, and TAMC

Figure 3-2: Total Expenditures by Project Type



Source: AMBAG, SBtCOG, SCCRTC, and TAMC

Table 3-1: Total Revenue by Source

Revenue Sources (all figures in 1000's)	22 Year Not Escalated	Percent of Funding (Not Escalated)	22 Year Escalated at 1.0175%	Percent of Funding (Escalated)
Local Revenue Sources	\$4,873,819	62.4%	\$5,866,881	61.5%
Gas Tax, Prop 42 and TDA	\$1,241,848	15.9%	\$1,450,130	15.2%
Transit Related Revenues	\$1,296,664	16.6%	\$1,650,304	17.3%
Local Misc. Revenues	\$2,335,307	29.9%	\$2,766,447	29.0%
Regional Revenue Sources	\$42,825	0.5%	\$51,366	0.5%
AB 2766	\$42,825	0.5%	\$51,366	0.5%
State Revenue Sources	\$1,819,132	23.3%	\$2,238,113	23.5%
Prop 1B and SHOPP	\$1,280,578	16.4%	\$1,618,346	17.0%
STIP	\$302,378	3.9%	\$340,454	3.6%
State Misc. Revenues	\$236,176	3.0%	\$279,313	2.9%
Federal Transit Revenue Sources	\$457,799	5.8%	\$659,401	6.9%
Bus and Bus Related Grants (5309c), Enhanced Mobility of Seniors and Individuals with Disabilities (5310), FTA Section 5304, Intercity Bus (5311f), Fixed Guideway Capital Investment Grants (5309), Safety Authority (5329), Bus and Bus Facilities Formula Grants (5339), and Federal Very Small Starts	\$205,917	2.6%	\$363,184	3.8%
Metropolitan Planning (5303)	\$230	0.0%	\$270	0.0%
Nonurbanized Rural Area Formula Program (5311)	\$17,751	0.2%	\$25,364	0.3%
Urbanized Area Formula Program (5307)	\$233,901	3.0%	\$270,583	2.8%
Federal Highway Revenue Sources	\$473,746	6.1%	\$547,158	5.7%
Earmarks, High Risk Rural Road (HR3), Highway Bridge Program (HBP), Highway Safety Improvement Program (HSIP), National Scenic Byways Program, and FEMA/CALEMA/ER - Emergency Road Repair Funding	\$243,479	3.1%	\$287,022	3.0%
Regional Surface Transportation Program (RSTP)	\$223,487	2.9%	\$260,136	2.7%
Transportation Enhancements (TE) Transportation Alternatives Program (TAP)	\$6,780	0.1%	\$0	0.0%
Federal Aviation Revenue Sources	\$142,755	1.8%	\$167,933	1.8%
FAA Airport Improvement Program (AIP)	\$142,755	1.8%	\$167,933	1.8%
Grand Total	\$ 7,810,076	100.0%	\$ 9,530,852	100.0%

Source: AMBAG, SBtCOG, SCCRTC, and TAMC

to active transportation program funding. On the other hand, MAP-21 increased the Highway Safety Improvement Program (HSIP) and has clarified that the safety of all road users should be improved, not just motorists. Additionally, MAP-21 gives great flexibility for Caltrans to shift, or flex, money between its many programs—representing a potential opportunity to actually increase the amount of federal funding that supports pedestrian and bicycle projects and programs across the state.

On September 26, 2013, Governor Brown signed legislation creating the Active Transportation Program (ATP) in the Department of Transportation (Senate Bill 99, Chapter 359 and Assembly Bill 101, Chapter 354). The ATP consolidates existing federal and state transportation programs, including the Transportation Alternatives Program (TAP), Bicycle Transportation Account (BTA), and State Safe Routes to School (SR2S), into a single program for active transportation. The funding in this program will be administered on a competitive grant basis with a 25 percent set aside for disadvantaged populations. The region forecasts over \$70 million in revenue from the competitive ATP grant funding program.

Transportation Development Act - State Transit Assistance Fund

The Transportation Development Act (TDA) of 1971, enacted by the California Legislature to improve existing public transportation services and encourage regional transportation coordination, provides funding to be allocated to transit and non-transit related purposes that comply with regional transportation plans. The TDA provides two funding sources: the Local Transportation Fund (LTF) and the State Transit Assistance Fund (STA). The LTF portion of TDA funding is described further below under “Local Revenues.” The STA is derived from the statewide sales tax on gasoline and diesel fuel. Statute requires that 50 percent of STA funds are allocated according to population and 50 percent be allocated according to operator revenues from the prior fiscal year. The region forecasts almost \$140 million in TDA/STA funds.

Local Revenues

At \$4.8 billion, local revenues constitute 62 percent of all transportation funding for the Monterey Bay Area in the 2035 MTP/SCS. The Transportation Development Act/Local Transportation Fund (10%), the Highway User Tax/Gas Tax (16%), developer fees (8%), transit revenue (27%), and new transportation sales taxes (16%) constitute over two thirds of all local revenues. The major revenue sources are detailed below.

Transportation Development Act - Local Transportation Fund

The TDA extended sales tax to gasoline purchases and earmarked 1/4 of one cent of all sales tax proceeds for public transit improvements in the county where the revenue was generated. Jurisdictions may use these Local Transportation Fund (LTF) amounts for street and road purposes if a finding is made by the jurisdiction involved that there are “no unmet transit needs that are reasonable to meet.” The reasonableness criteria is defined by each Regional Transportation Planning Agency administering the funds. The Monterey Bay Area forecasts over \$491 million from the TDA/LTF category.

Gas Tax

The gas tax funds that are apportioned from the state to cities and counties are to be used exclusively for local roadway projects. Gas tax revenues are dependent upon the amount of gasoline consumed since the tax is assessed on a per gallon basis rather than on the cost of gasoline. Any unobligated balance in these funds is transferred to the State Highway Account. The region is forecast to receive \$750 million in gas tax revenues over the life of the Plan.

Transit Fares

All the public transit operators in the Monterey Bay metropolitan region charge a user fee (fare) for persons to ride their service. Although the intent is for the users of the service to contribute a small portion of the cost to operate the system, it also is to ensure that each operator can meet pre-established farebox recovery ratio standards for the continued receipt of Transportation Development

Act funds. The farebox recovery ratio is the amount collected from passenger fares divided by the cost of providing the service. In the Monterey Bay metropolitan region, this amount ranges from 10 percent (usually the general public transit and paratransit programs have low farebox recovery ratios) to up to 40 – 50 percent (e.g. Express Bus services).

Transit fares will constitute nearly \$438 million of revenue for the Monterey Bay Region through 2035. Other sources of transit revenue include a sales tax and revenue on ad space. The combined total revenue from transit is forecasted to be over \$1.2 billion or 27 percent of all local revenue sources for the life of this Plan.

Developer Fees

An additional source of funding which is used in many places throughout the Monterey Bay region is traffic impact fees. A traffic mitigation impact fee distributes the costs of transportation improvements among all new developments based on the size of a proposed development or estimates of a project's trip generation capacity. Caltrans notes that fair-share, per unit fees for new development that have a direct nexus to mitigating the impacts of additional trips created, are appropriate. San Benito County has implemented an impact fee program within the County and the City of Hollister for some years. In Monterey County, the Cities of Greenfield, King City, Salinas, and Soledad have impact fee programs. The Fort Ord Reuse Authority also collects fees to fund transportation improvements needed to accommodate redevelopment of the former Fort Ord.

In addition to jurisdictions' traffic impact fee programs, the Transportation Agency for Monterey County has developed a countywide regional traffic impact fee program to move transportation projects forward. In total the region forecasts to collect over \$619 million in developer fees including regional developer fees.

Local Transportation Sales Tax

A new transportation sales tax is identified as a reasonably available revenue source for Monterey,

San Benito and Santa Cruz Counties. Based on numerous surveys and the successes in other regions of the state representing over 80 percent of the state's population, the 2035 MTP/SCS assumes that voters in Monterey and Santa Cruz counties will approve a new local revenue source - an 1/8 cent sales tax for public transit and a 1/2 cent sales tax for regional transportation in Monterey County, and a 1/2 cent sales tax in Santa Cruz Counties - thereby including an anticipated revenue of approximately one billion or 21 percent of local revenue in the Plan. It is reasonable to include this potential revenue for several reasons:

- Numerous surveys, public workshops, and outreach to community and business leaders and stakeholder groups have demonstrated broad based support for new taxes to fund transportation projects. Over the past decade, the Regional Transportation Planning Agencies for Monterey and Santa Cruz Counties and local agencies have worked with the community to evaluate options to increase funding for transportation, including a Vehicle Registration Fee discussion conducted in 2012 and the extensive Transportation Funding Task Force (TFTF) process in 2006-2007 in Santa Cruz County.
- Thirty-three percent of counties in California representing 84 percent of the population are self help counties benefiting from increased locally sourced transportation revenues and those that are not continue efforts to become self help counties through a statewide Aspiring Counties group; therefore, it is reasonable to assume that this trend will continue in the future.
- While current state law requires that two-thirds of voters approve any new local sales tax which includes a specific list of projects, legislative efforts are underway to reduce the two-thirds (66.67%) vote requirement for special taxes to 55 percent which will increase the likelihood for local transportation measures to be approved.
- Local transportation sales taxes and vehicle registration fees are among the more feasible funding sources to adopt logistically, as state law

already authorizes voters to raise such taxes.

- In order to further reduce greenhouse gas (GHG) emissions, additional revenues are needed to build the infrastructure and expand services to achieve state and local goals.
- As fewer state and federal dollars are designated for transportation, local communities are increasingly recognizing the need to generate reliable local funding that cannot be taken by the state.

Strategies to implement local revenue measures include:

- Develop a draft expenditure plan of projects to receive sales tax and vehicle registration fee revenues based on funding projections included in the Regional Transportation Plans, including gaps in available revenue for some projects.
- Conduct polling at various points to test support for expenditure plans, test key messages and ballot language.
- Develop a public education plan and build support coalitions.

- Conduct outreach, including roundtables, focus groups, community meetings, workshops, work with advisory bodies, and seek input from local jurisdiction councils and board of supervisors.
- Conduct a public information program which may include: establishing speaker's bureau to community and business groups, developing project Fact Sheets, writing articles for newsletters, using newspaper inserts, printing brochures, developing a special website or webpage, conducting media outreach, and posting Frequently Asked Questions.
- Complete legal and required environmental review of the expenditure plan.
- Draft and finalize ballot language. File the ballot measure at the elections office.

Highway 156 Toll Revenues

Tolling revenues for State Route 156 West are included as a reasonably available revenue source for Monterey County. TAMC has been working closely with Caltrans to outline the tasks, activities and agreements necessary to consider tolling via a public-private partnership as an option to fund

Table 3-2: Total Expenditures by Project Type

Expenditures (all figures in 1000's)	22 Year Current Dollars (Not Escalated)	Percent of Funding (Not Escalated)	22 Year of Expenditure Dollars (Escalated)	Percent of Funding (Escalated)
Transit				
Rail and BRT New Facilities	\$671,459	8.6%	\$878,750	9.7%
Transit Capital, Rehabilitation, and Replacement	\$250,605	3.2%	\$316,573	3.5%
Transit Operations	\$1,480,757	19.0%	\$1,788,120	19.7%
ADA/HHSA Transportation Services	\$231,112	3.0%	\$288,617	3.2%
Highways				
Highway Projects	\$1,075,292	13.8%	\$1,245,267	13.7%
Highway Operations, Maintenance, and Rehabilitation	\$1,191,057	15.3%	\$1,411,531	15.6%
Local Streets & Roads				
Local Streets and Roads Capital Expansion	\$566,747	7.3%	\$728,178	8.0%
Local Streets and Roads Operations, Maintenance, and Rehabilitation	\$1,112,230	14.2%	\$1,014,485	11.2%
Active Transportation, Transportation Demand & System Management				
Active Transportation	\$898,919	11.5%	\$999,491	11.0%
Transportation Demand Management	\$46,211	0.6%	\$57,172	0.6%
Transportation Systems Management	\$22,763	0.3%	\$27,711	0.3%
Other				
Airport	\$262,924	3.4%	\$319,093	3.5%
Grand Total	\$7,810,076	100.0%	\$9,074,987	100.0%

Source: AMBAG, SBtCOG, SCCRTC, and TAMC

construction of the State Route 156 West Corridor project. The agency completed a Tolling Traffic and Revenue Study for State Route 156 in 2013 and took action to further study the feasibility of the project. TAMC and Caltrans also held a private industry workshop to gauge private interest in investing in the tolling project. The region is forecasting almost \$149 million in revenue from tolling on State Route 156.

Strategies to implement this revenue include:

- Execution of a Pre-Development Agreement between Caltrans, TAMC and a private developer team in which the developer participates in project planning, value engineering, determining financial feasibility and other activities that take place before the construction procurement phase.
- Completion of an investment-grade Traffic and Revenue Study, as other products needed to inform TAMC's decision to proceed with tolling for the project.
- Preparation of a Supplemental Environmental Impact Report.
- Evaluation of various design and financing options that would allow building both phases of the project.

Revenue Constrained Scenario

As the 2035 MTP/SCS is long range planning document, projects listed in the Plan do not represent any specific commitment of funds to any project. Projects are approved by the Regional Transportation Planning Agency for respective federal or state funding sources and then amended into the Metropolitan Transportation Improvement Program (MTIP) prior to funding being dedicated to an individual project. As such, the MTP represents a long range list of projects through which those programmed funding will be advanced into the MTIP for implementation.

Financing for the 2035 MTP/SCS is shown in the Tables 3-1 and 3-2. The tables identify revenue

sources and financial amounts reasonably expected to be available over the life of the Plan as well as expenditures.

Unconstrained Projects

Based on the analysis of travel demand in the region to 2035, needs have been identified for transportation improvements and associated operations, maintenance, and rehabilitation. These needs require funding above and beyond assumed revenues included in the 2035 MTP/SCS. The total known unconstrained need for the Monterey Bay Area is more than \$15 billion.

4 Sustainable Communities Strategy



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Introduction

The word “sustainable” is used in many contexts. In the case of this Plan it refers to the mandates arising from Senate Bill (SB) 375 to develop a Sustainable Communities Strategy. At the heart of SB 375 is the requirement to coordinate transportation investments with land use patterns such that the region makes informed decisions about where to invest the region’s limited resources and simultaneously reduces greenhouse gases by providing more direct access to destinations as well as by providing alternative transportation options. This Plan is required to analyze where people are going and how they want to get there in order to build a transportation network that addresses the mobility and accessibility needs of the region. One strategy included in this Plan to achieve this is more focused growth in high quality transit corridors. Another strategy in the Plan is to provide more travel choices as well as a safe and efficient transportation system with improved access to jobs and education for the region’s residents. Additionally, the 2035 MTP/SCS supports job creation through economic development, ensures the region’s economic competitiveness through strategic investments in freight, and improves environmental outcomes for the region’s residents by 2035.

The passage of SB 375 directs AMBAG to consider future land use patterns in conducting its long range transportation planning. The mandates of SB 375 provide the region with a renewed opportunity for integrated planning for the future. The purpose of SB 375 is to implement the state’s greenhouse gas (GHG) emissions reduction goals for cars and light trucks. This law requires the California Air Resources Board (CARB) to determine per capita GHG emission reduction targets for each metropolitan planning organization (MPO) in the state at two points in the future—2020 and 2035.

In accordance with Government Code Section 65080(b)(2)(B)(vii), the 2035 MTP/SCS achieves GHG emission reductions of three percent per capita in 2020 and a nearly six percent per capita in 2035, surpassing CARB’s reduction targets of zero and five percent for the same years.

Under SB 375, AMBAG and California’s 17 other MPOs must address GHG reduction as part of a broader “Sustainable Communities Strategy,” or SCS. Transportation strategies contained in this MTP such as managing transportation demand and making certain transportation system improvements, are major components of the SCS. However, the SCS also focuses on the land use growth pattern for the region, because geographical relationships between land uses—including density, diversity, and intensity—help determine the need for travel. Therefore, AMBAG’s SCS includes not only projections regarding the transportation network, but land use as well.

Specifically, SB 375 calls for the preparation of an SCS that “sets forth a forecasted development pattern for the region, which, when integrated

Assembly Bill (AB) 32 and Senate Bill (SB) 375

California has a number of regulations regarding greenhouse gases (GHGs) and they are often confused with each other, in particular SB 375 is confused with AB 32. The major difference is AB 32 reduces GHGs from all sectors, whereas SB 375 is only concerned with transportation, specifically passenger vehicles.

California's major initiative for reducing GHG emissions is outlined in AB 32, the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels, and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions.

Senate Bill (SB) 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by aligning transportation planning and funding, land use planning and state housing mandates at the regional level in order to reduce VMT and transportation-related GHG emissions. As mandated by CARB, AMBAG must reduce per capita GHG emissions from passenger vehicles in order to meet the SB 375 target. For the AMBAG region, the targets set by CARB are not to exceed 2005 per capita levels of GHGs by 2020 and to reduce GHG emissions by 5 percent per capita from 2005 levels by 2035.

with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the state Air Resources Board." [CGC Section 65080(b)(2)(B)(vii)].

In summary, under SB 375, an SCS must:

- Identify existing and future land use patterns;
- Identify transportation needs and the planned transportation network;
- Consider statutory housing goals and objectives;
- Identify areas to accommodate long term housing needs;
- Identify areas to accommodate 8 year housing needs;
- Consider resource areas and farmland; and
- Comply with federal law for developing an MTP.

These requirements, as outlined in California Government Code Section 65080(b)(2)(B), do not mean that the SCS creates a mandate for land use policies at the local level. In fact, SB 375 specifically states that the SCS cannot dictate local general plan policies (see Government Code Section 65080(b)(2)(J)). Rather, the SCS is intended to provide a regional policy foundation that local governments may build upon as they choose, which includes quantitative growth projections for each city and county in the region. In addition, some projects consistent with the SCS may be eligible for a streamlined environmental review process.

The key difference between past and current regional planning efforts is a sharper focus on reducing GHG emissions from cars and light trucks. For these vehicles, the state has developed a three-tiered approach to reducing GHG emissions. In addition to the regional land use policies and transportation investments contained in the 2035 MTP/SCS, the state has enacted laws to increase vehicle fuel efficiency and to increase the use of

alternative, lower carbon transportation fuels. AMBAG and other regional stakeholders are supporting infrastructure planning for alternative fuels and zero emissions vehicles, which is addressed later in this chapter.

California Transportation Plan

Senate Bill 391 of 2009 requires the California Department of Transportation to prepare the California Transportation Plan, a long range transportation plan, by December 2015. This system must reduce GHG emissions to 1990 levels from current levels by 2020, and 80 percent below the 1990 levels by 2050 as described by AB 32 and Executive Order S-03-05 respectively. The upcoming California Transportation Plan 2040 will demonstrate how major metropolitan areas, rural areas, and state agencies can coordinate planning efforts to achieve critical statewide goals. SB 375 addresses the regional GHG emissions from the transportation sector and SB 391 addresses the statewide GHG emissions from the transportation sector, both in support of AB 32.

Creating the 2035 MTP/SCS

The 2035 MTP/SCS contains ambitious goals to meet the region's challenges and are informed by the policies identified in Chapter 1. In recent years, AMBAG and its local jurisdictions have laid the groundwork for the 2035 MTP/SCS by engaging in a variety of efforts to plan for more sustainable communities such as the Blueprint – "Envisioning the Monterey Bay." Building on this foundation, AMBAG's first step in developing the SCS was to coordinate with its local and regional partners in both information gathering and strategy development to create a realistic and implementable 2035 MTP/SCS. AMBAG also engaged the public and regional stakeholders to determine their priorities of the region. This "bottom-up" approach has included local jurisdictions, the three regional transportation planning agencies (RTPAs), transit operators, Caltrans, Monterey Bay Unified Air Pollution Control District, and a wide array of community stakeholders.

Regional Transportation Planning Agencies

As the agencies statutorily responsible for the implementation of transportation projects in their respective counties, AMBAG's three RTPAs - the Transportation Agency for Monterey County, the Santa Cruz County Regional Transportation Commission and the San Benito County Council of Governments - have a critical role in the development of the 2035 MTP/SCS. Early in the development process, the RTPAs worked closely with AMBAG to identify key priorities for consideration in the 2035 MTP/SCS's scenario planning process. The RTPAs remained actively involved throughout the entire scenario planning process, offering meaningful input as AMBAG decision-makers considered the various policy alternatives. Given the new requirements of SB 375, it will be critical for the RTPAs to embrace the concept of integrating transportation planning with land use planning for this region to develop a truly sustainable 2035 MTP/SCS.



Land Use & Transportation Connection

Scenario Planning

Scenario planning is a planning method that analyzes a series of potential futures. In developing the Sustainable Communities Strategy, it is used to evaluate potential combinations of land use patterns and transportation investment. The resulting scenarios were analyzed and evaluated in context of the 2035 MTP/SCS goals and performance measures.

Prior to creating the initial set of scenarios, a series of workshops were held to understand and gauge the public's preference with respect to land use and transportation issues and priorities. A web-based survey tool and a phone survey were also used to allow broader participation and input. Based on this input five scenarios were designed to explore and clearly convey the impacts of where and how the tri-county region grows over the next 25 years. On the land use side the alternatives explored whether growth should be focused within existing developed areas or dispersed. Scenarios also varied the style/design of neighborhoods. On the transportation side the scenarios varied the types of transportation investments in a manner that was consistent with the land use theme for that given scenario.

The initial five scenarios were built to be very discrete from one another in order to get a clear picture of the effects any given scenario would have on the performance measures. None of the initial scenarios were intended to be the final preferred scenario. Rather they were constructed to be starkly different in order to highlight how a particular style of growth could or could not meet the region's needs and preferences.

These five initial scenarios were presented to the public at a series of workshops as well as to staff and elected officials at each respective jurisdiction. Based on feedback, they were then consolidated down to two hybrid scenarios. After vetting the hybrids through partner agencies and local jurisdictions a final preferred scenario was prepared and incorporated into the 2035 MTP/SCS.

AMBAG used relevant data and information gathered from local governments and the RTPAs - the Transportation Agency for Monterey County, the Santa Cruz County Regional Transportation Commission and the San Benito County Council of Governments - to develop scenarios using a process that engaged the entire region in envisioning a more sustainable future. For each of these scenarios, it is assumed that the AMBAG Regional Growth Forecast (three county total) is a constraint (fixed upper limit) to the amount of total development in the region. Additionally, the hybrid and final preferred scenario restricted the majority of growth to the Spheres of Influence of any given city. Some growth is accounted for in unincorporated Community Plan Areas (Monterey County), Urban Service Areas (Santa Cruz County) or New Community Study Areas (San Benito County). All growth is consistent with General Plans and was based on direction from jurisdiction planning staff. Detailed documentation of the development of the scenarios can be found in Appendices E and F.

Regional Growth Forecast

The 2035 MTP/SCS depends on an accurate and credible forecast for future growth in population, housing, and employment as a basis for determining the region's infrastructure needs. Beginning in spring 2012, AMBAG conducted a series of one-on-one meetings with 18 cities and three counties to receive local input on the regional population, housing, and employment growth forecast for the 2035 MTP/SCS.

Over the last two years, the Regional Growth Forecast has been updated to reflect the 2010 Census, data from the California Employment Development Department and InfoUSA, as well as population and household data from the California Department of Finance. Ongoing discussions with local jurisdictions led to refinement of the forecast figures, which resulted in AMBAG's ability to obtain a consensus on the Regional Growth Forecast to serve as the foundation for the 2035 MTP/SCS. Figures 4-1 through 4-9 highlight the region's population, employment, and household growth through 2035. Detailed information on the Regional Growth Forecast can be found in Appendix A.

Scenario Planning

Scenario planning is an analysis tool that allows the comparison of potential future outcomes of policy decisions. Scenarios are stories in which a narrative helps illustrate how present day decisions might yield future outcomes. The narrative is grounded in empirical work that supports the assessment of scenarios for credibility and likelihood. Simply put, AMBAG and its partners used “what if” planning.

AMBAG in coordination with a range of stakeholders, including the planning directors from around the region, evaluated a series of scenarios in terms of the impact on greenhouse gas emissions and several other performance measures. Using quantitative inputs and producing statistical and visual outputs allows comparison of the outcomes of each scenario.

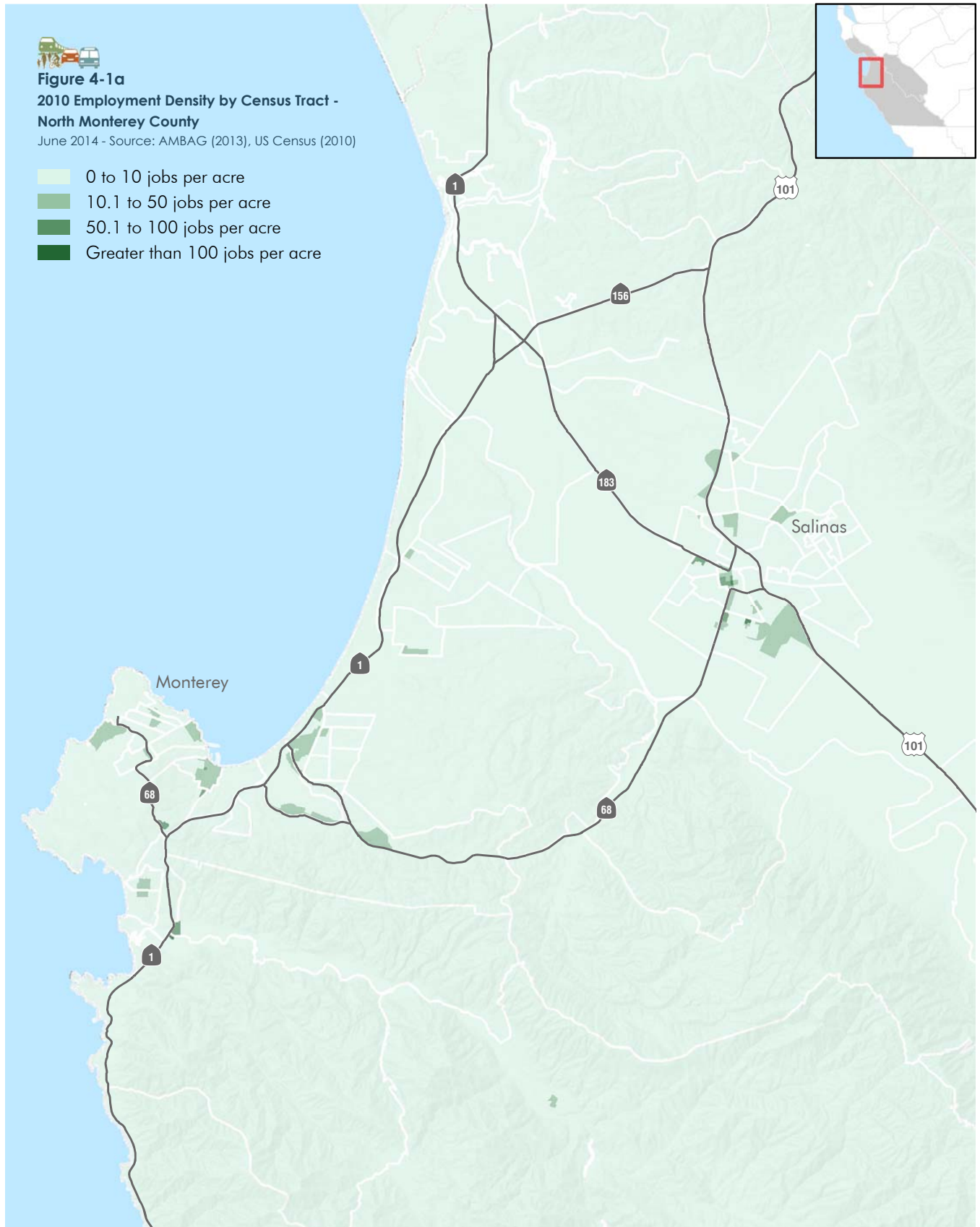
Through this effort, scenarios build on the existing urban footprint and are guided by identified emerging trends and local General Plans. What is at stake in scenario planning is not the past, but the future population and employment growth that will increase and shape the existing footprint over the next 25 years.

For each scenario there is a set of necessary conditions or requirements, including limited financial resources. Each scenario varies in character and changes the emphasis on types of transportation investments and land use patterns to measure the effect across a series of performance measures. The best performing and most publicly acceptable scenario is selected for the Sustainable Communities Strategy. See Chapter 4 for a more in depth discussion.



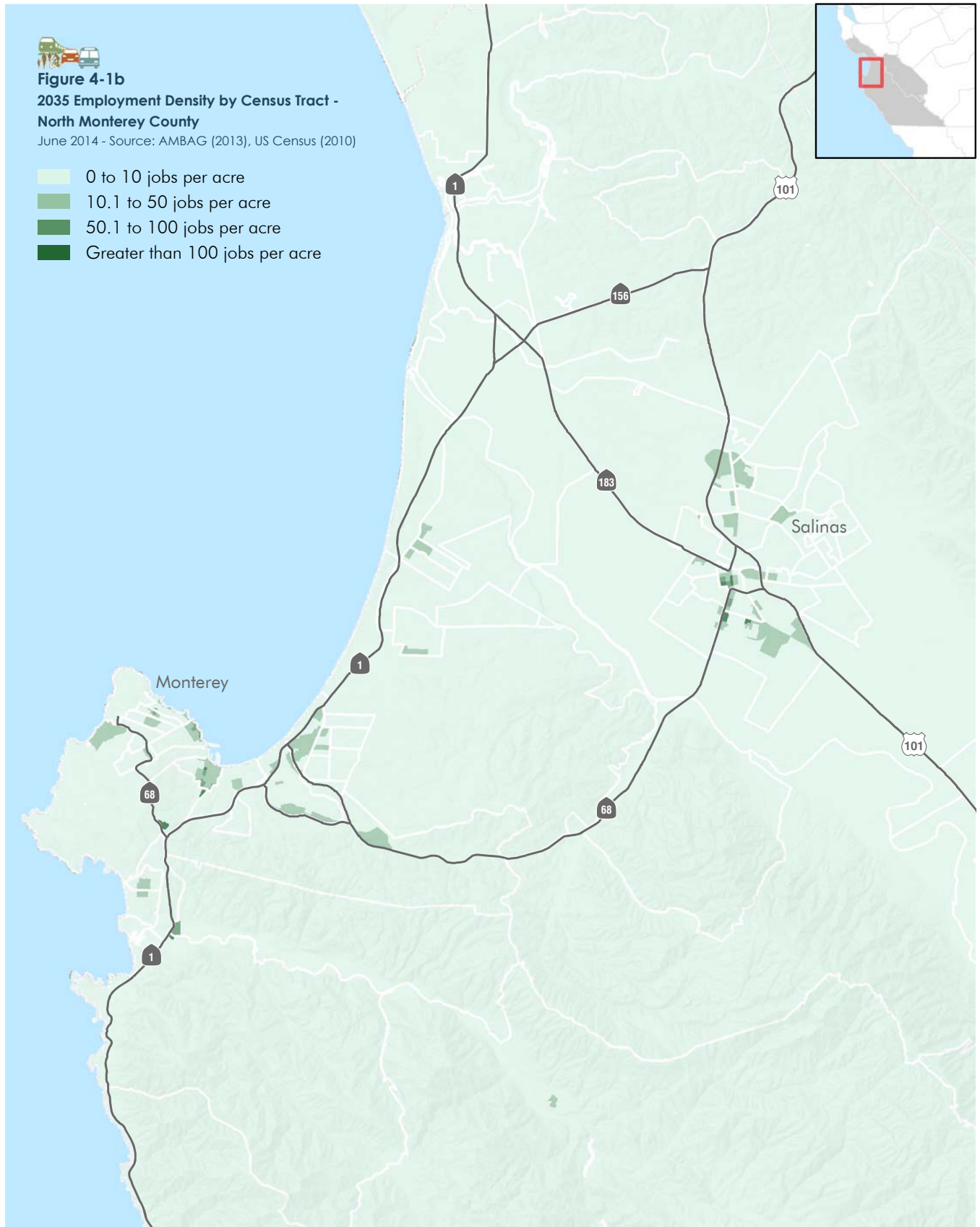
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**Figure 4-1a: 2010 Employment Density by Census Tract
North Monterey County**



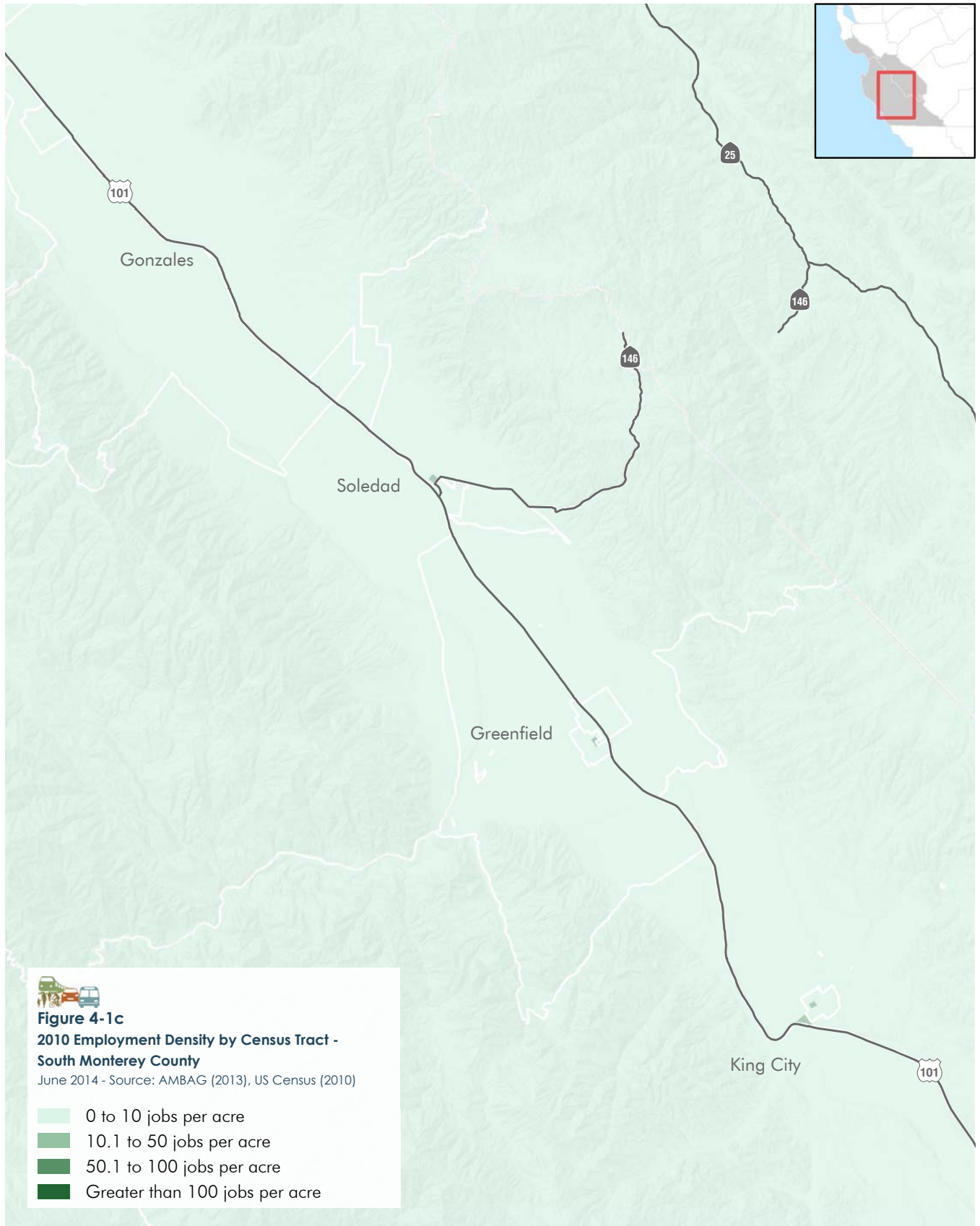
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**Figure 4-1b: 2035 Employment Density by Census Tract
North Monterey County**



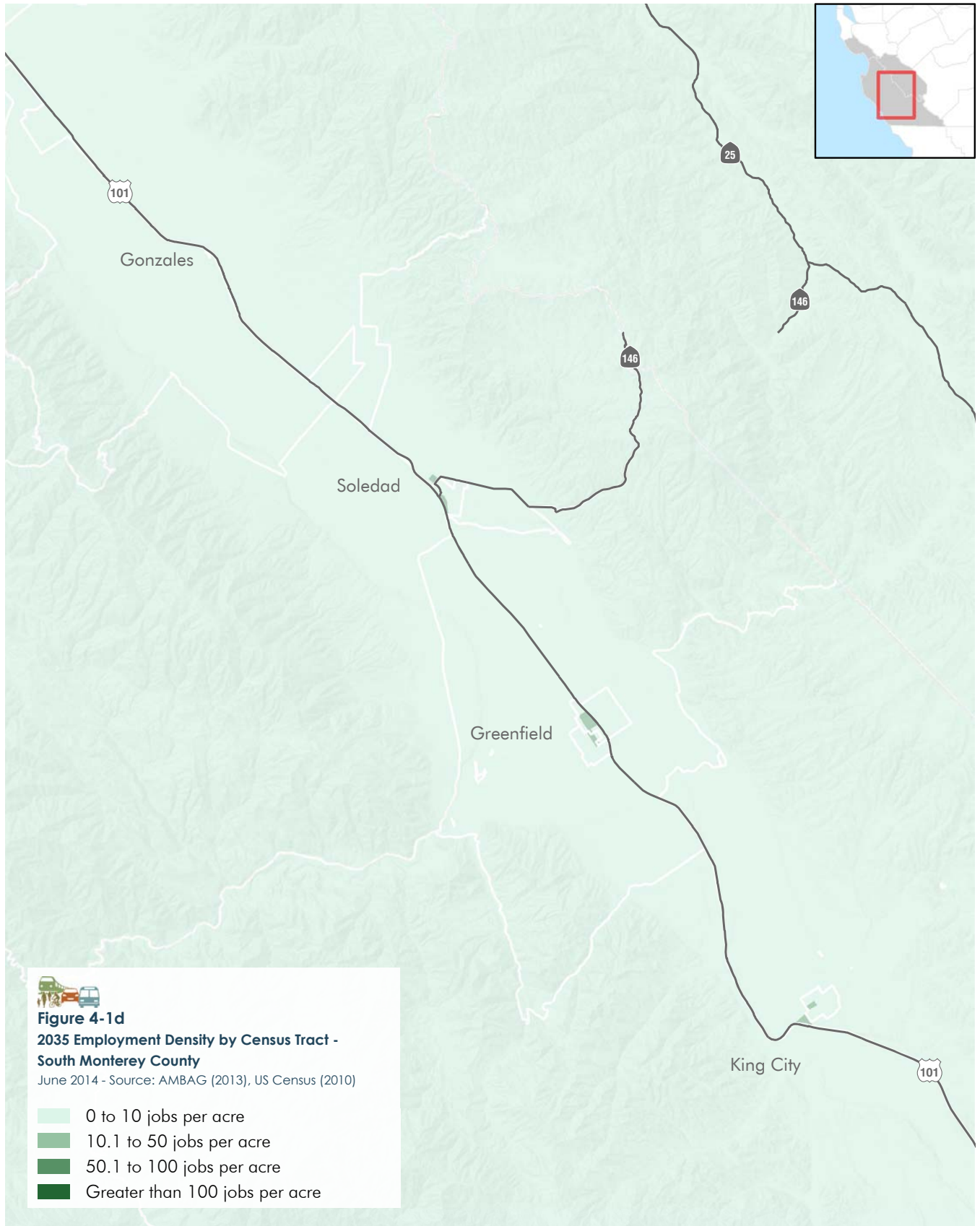
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**Figure 4-1c: 2010 Employment Density by Census Tract
South Monterey County**



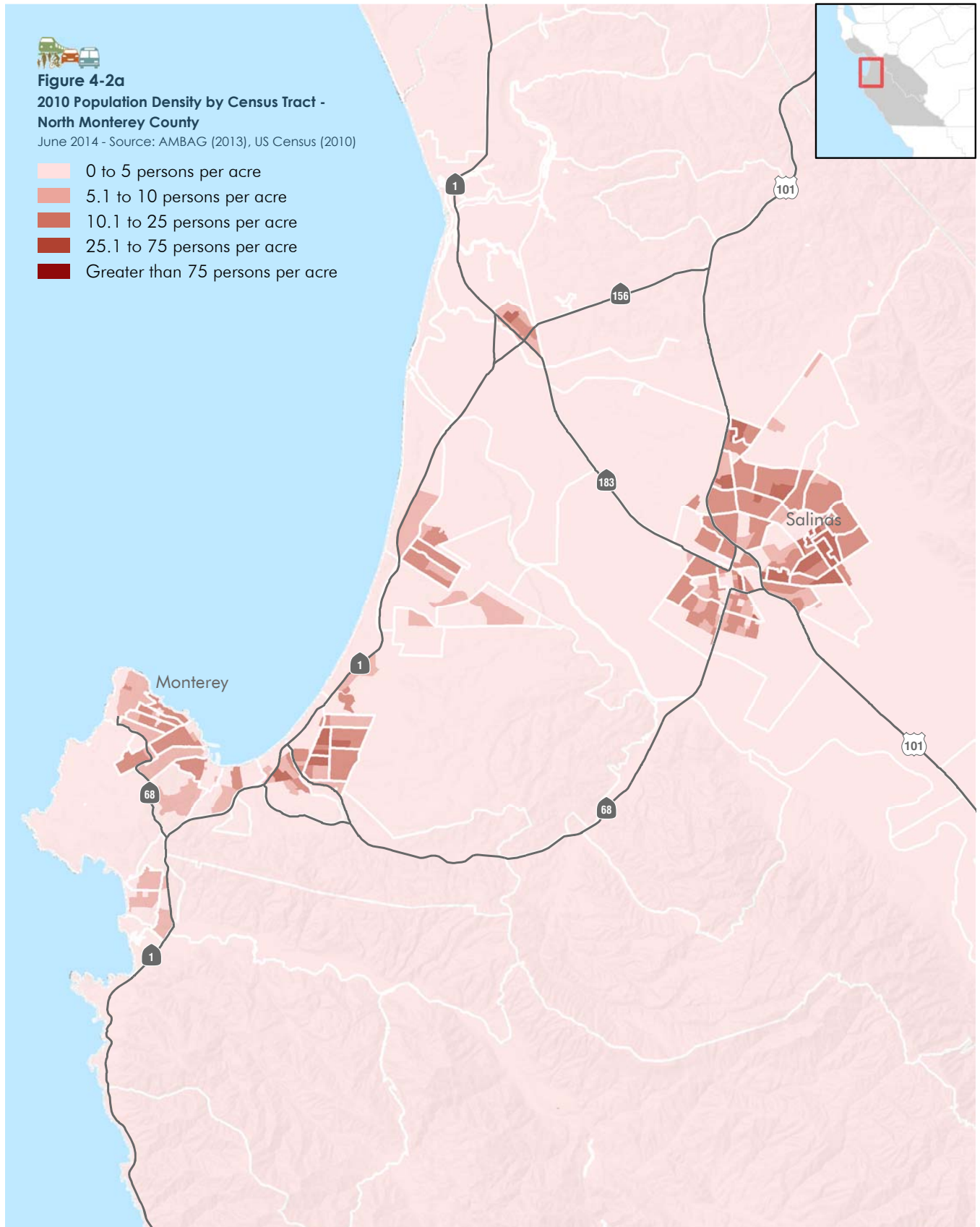
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**Figure 4-1d: 2035 Employment Density by Census Tract
South Monterey County**



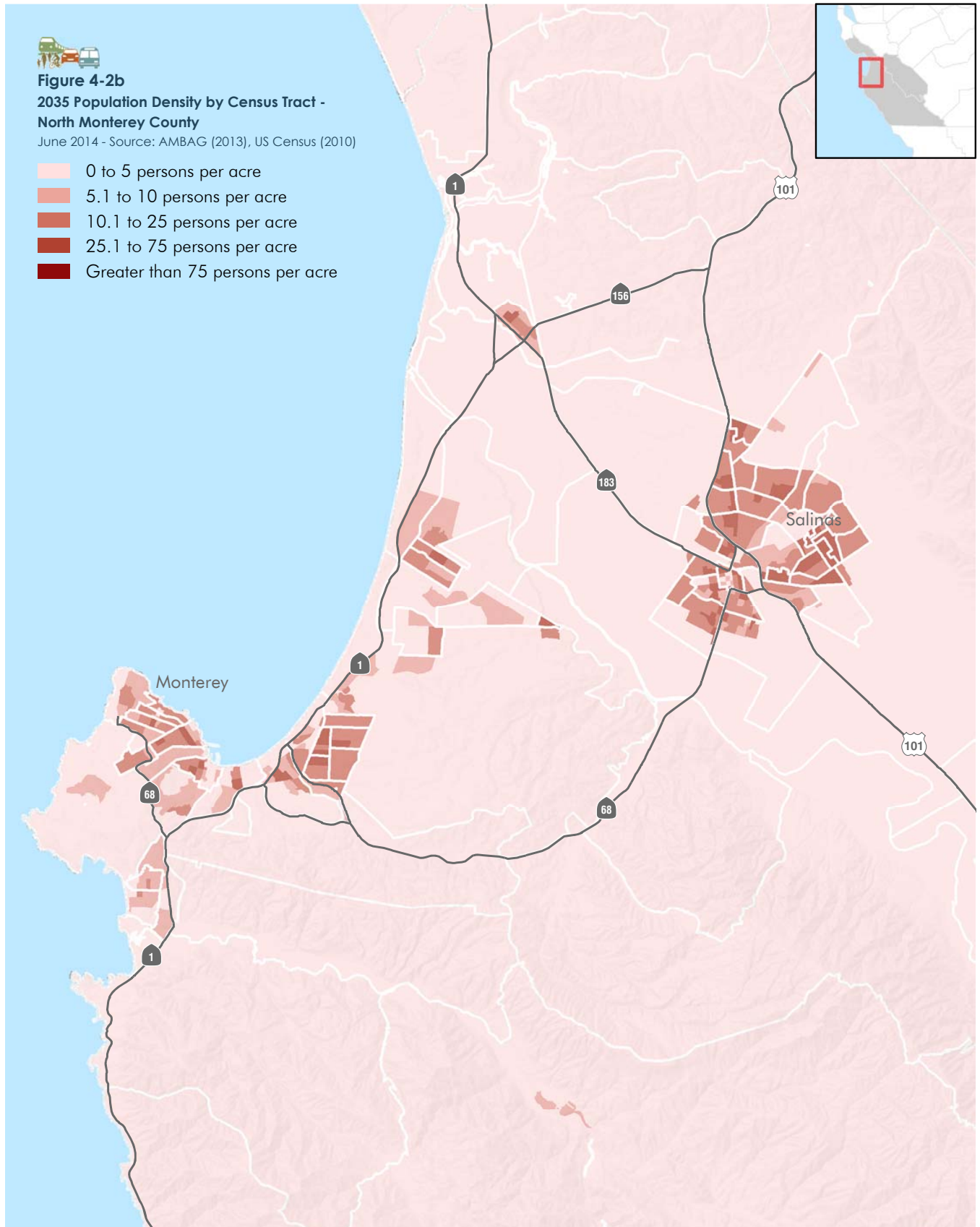
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**Figure 4-2a: 2010 Population Density by Census Tract
North Monterey County**



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**Figure 4-2b: 2035 Population Density by Census Tract
North Monterey County**



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**Figure 4-2c: 2010 Population Density by Census Tract
South Monterey County**



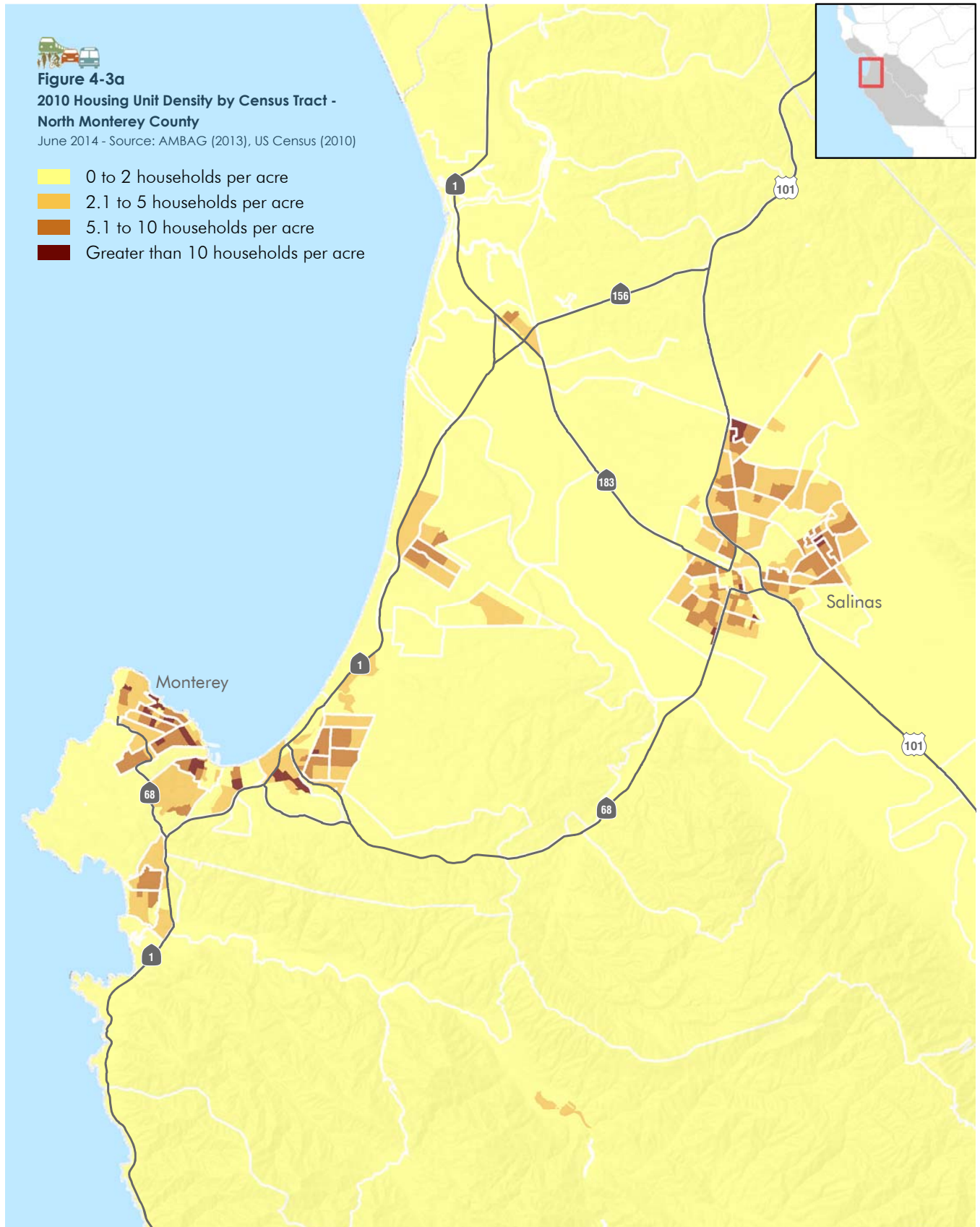
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**Figure 4-2d: 2035 Population Density by Census Tract
South Monterey County**



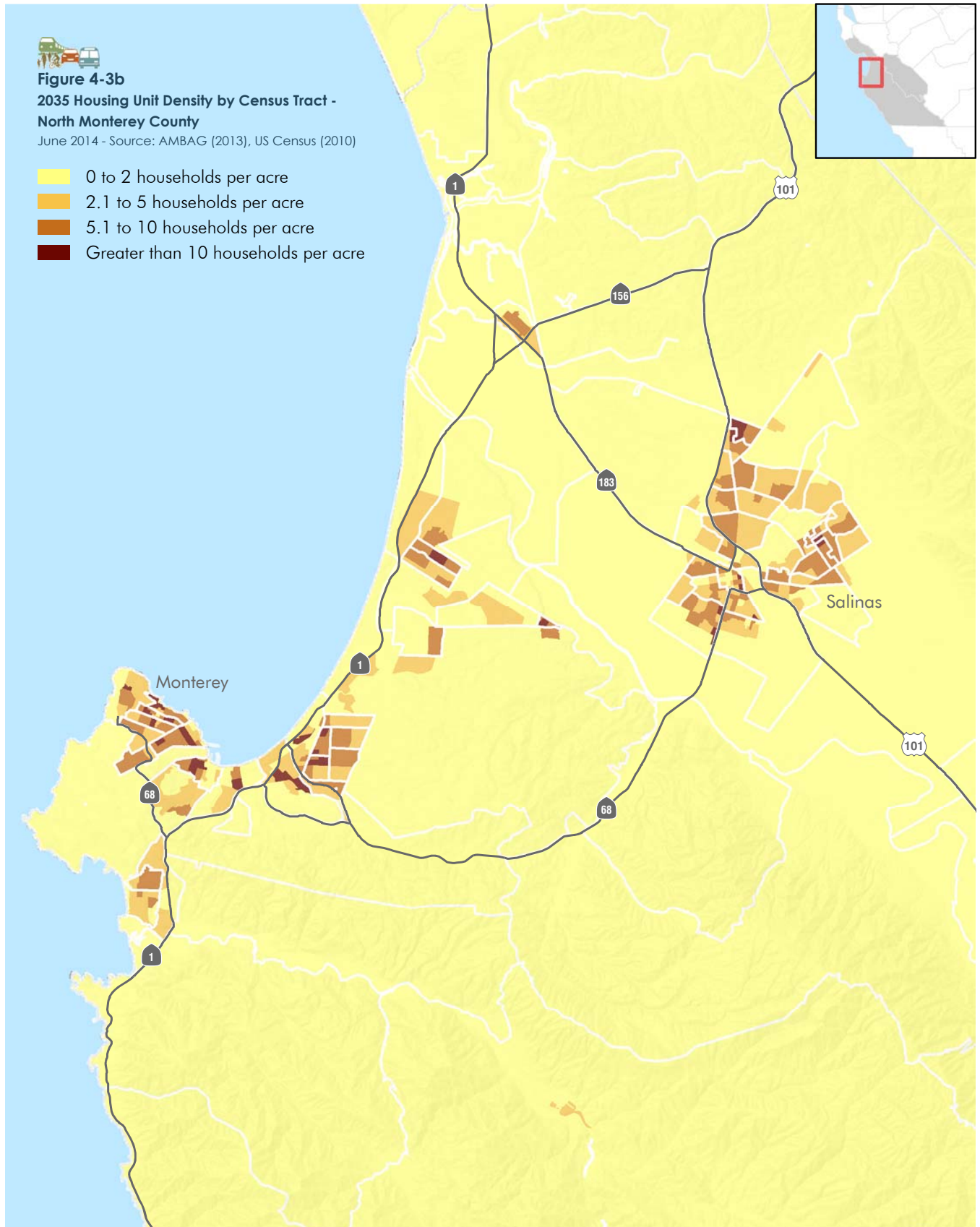
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**Figure 4-3a: 2010 Housing Unit Density by Census Tract
North Monterey County**



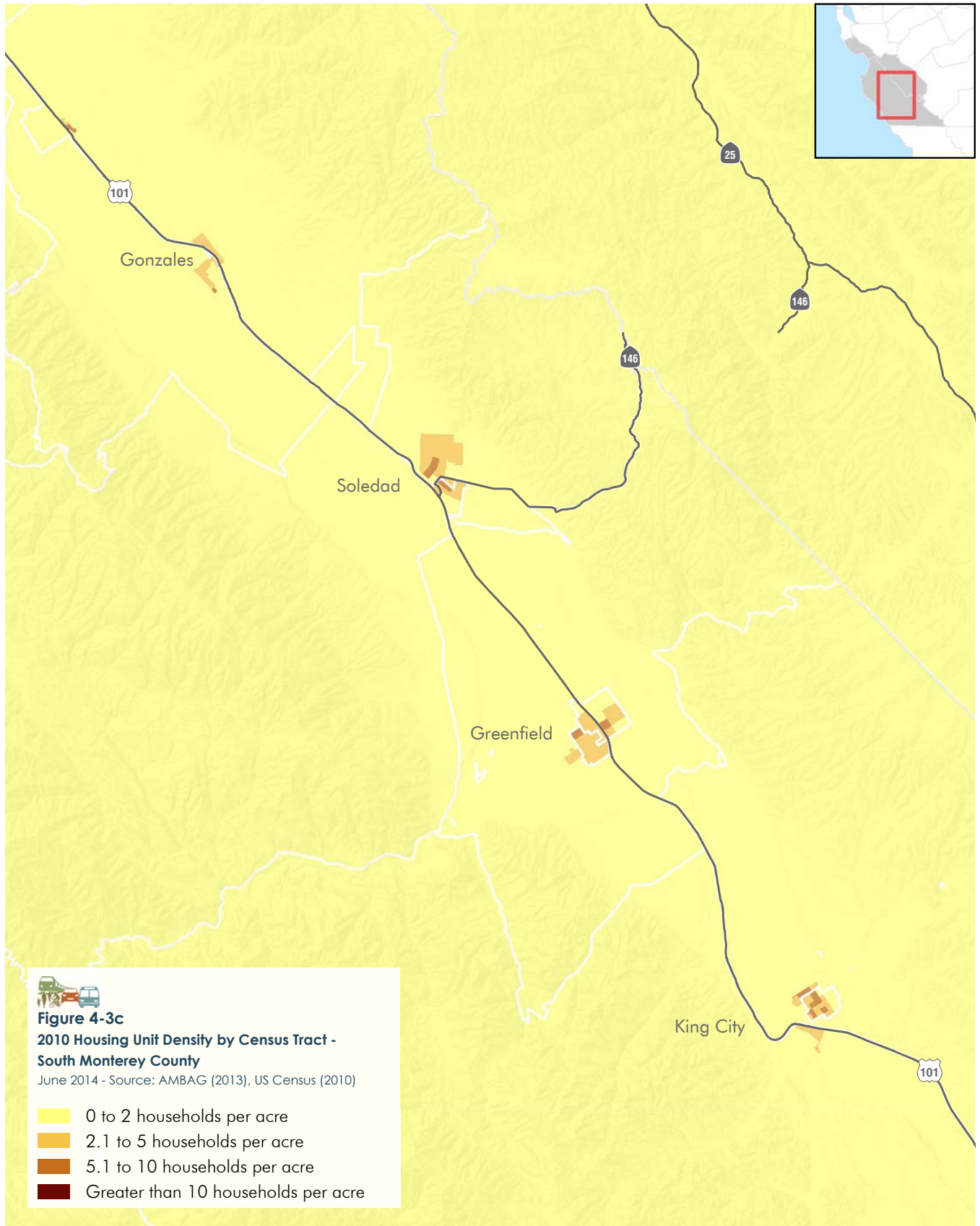
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**Figure 4-3b: 2035 Housing Unit Density by Census Tract
North Monterey County**



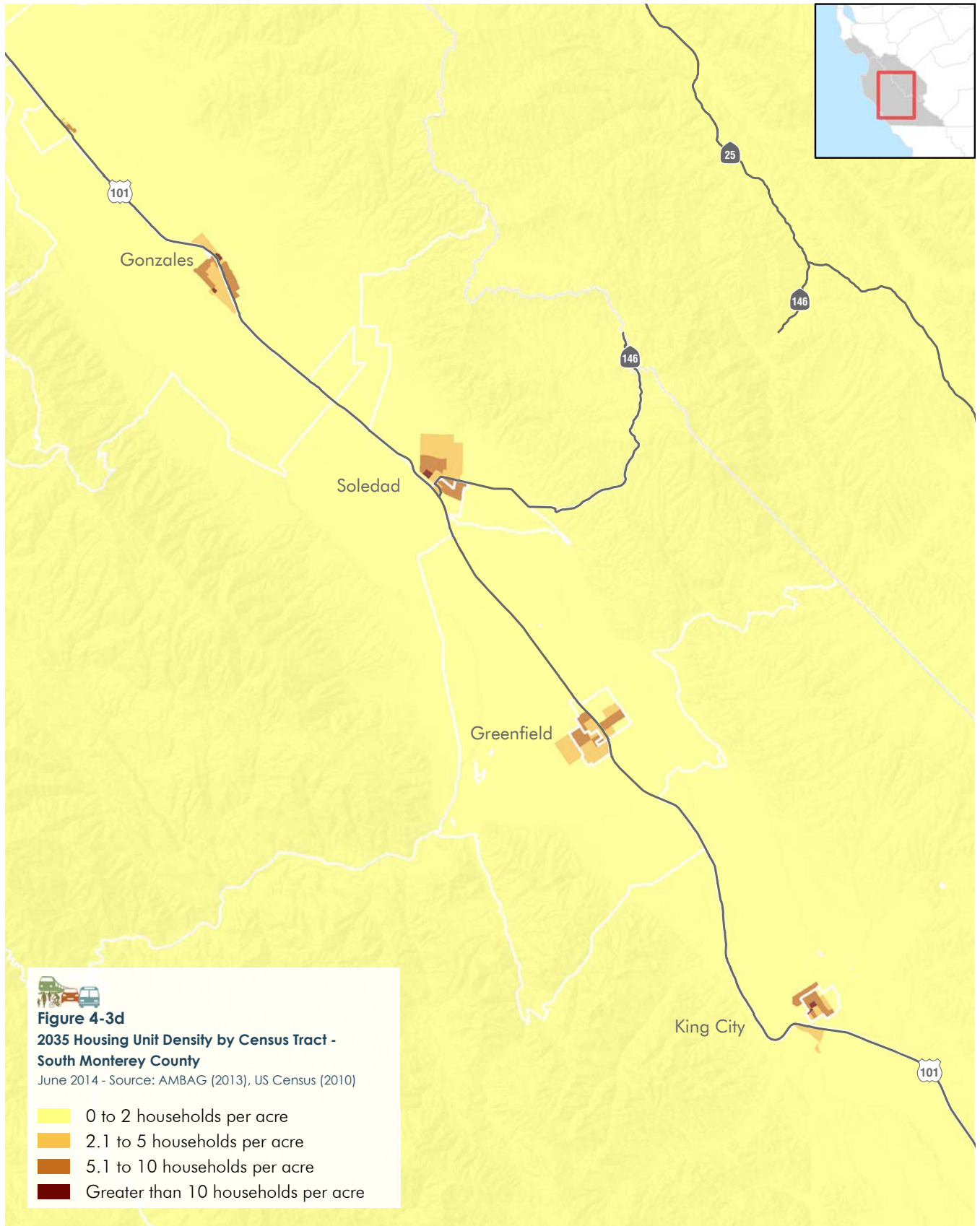
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**Figure 4-3c: 2010 Housing Unit Density by Census Tract
South Monterey County**



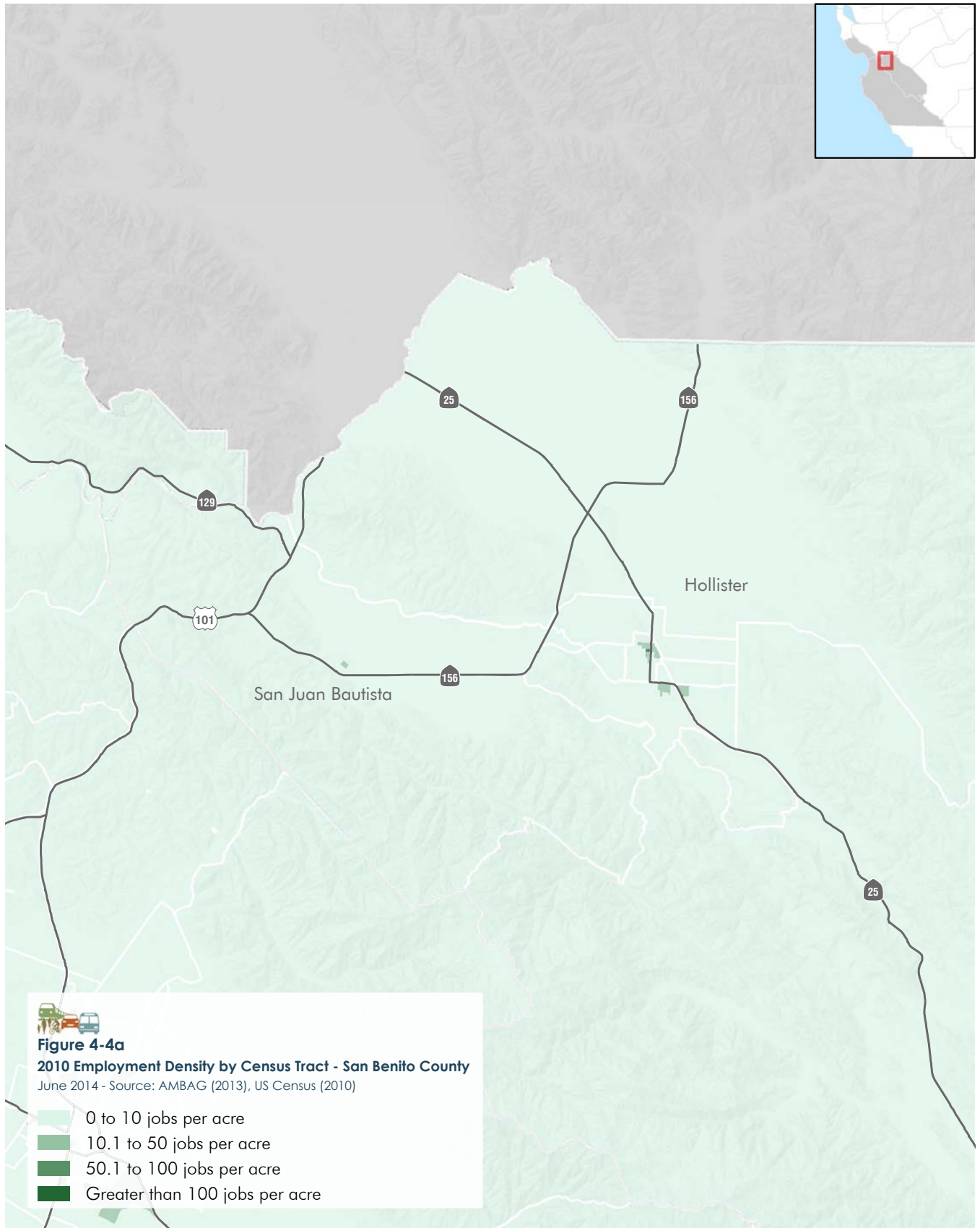
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**Figure 4-3d: 2035 Housing Unit Density by Census Tract
South Monterey County**



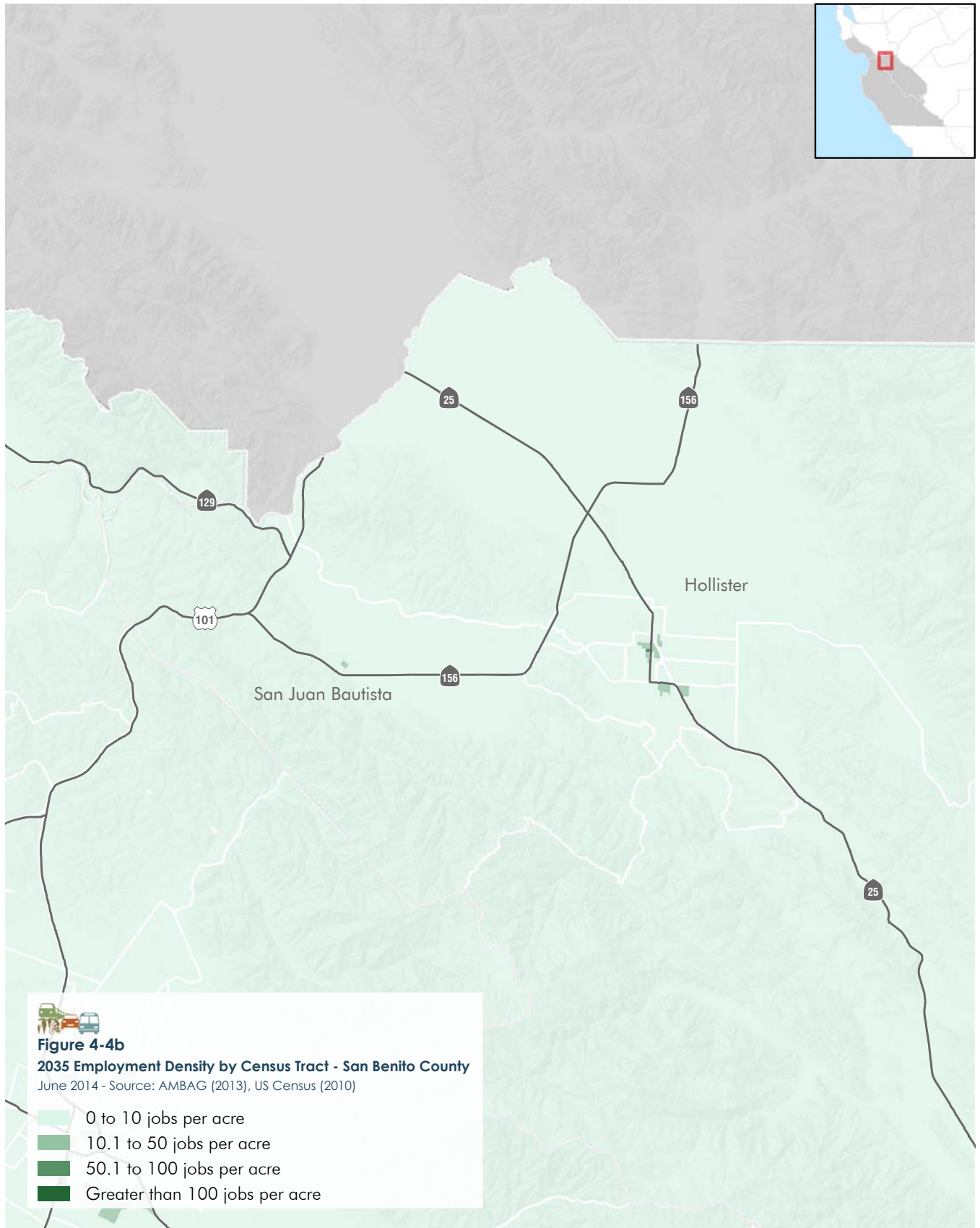
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**Figure 4-4a: 2010 Employment Density by Census Tract
San Benito County**



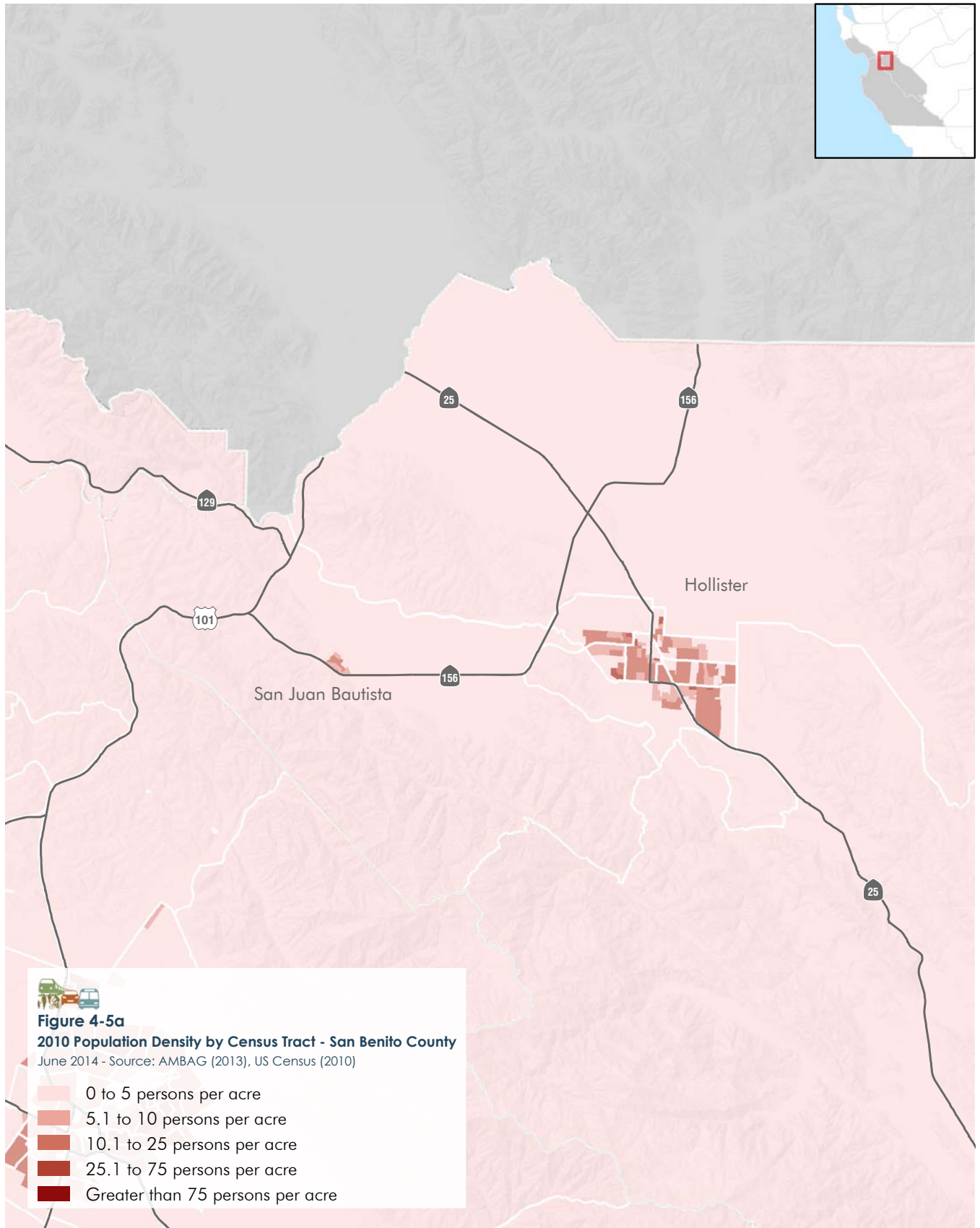
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**Figure 4-4b: 2035 Employment Density by Census Tract
San Benito County**



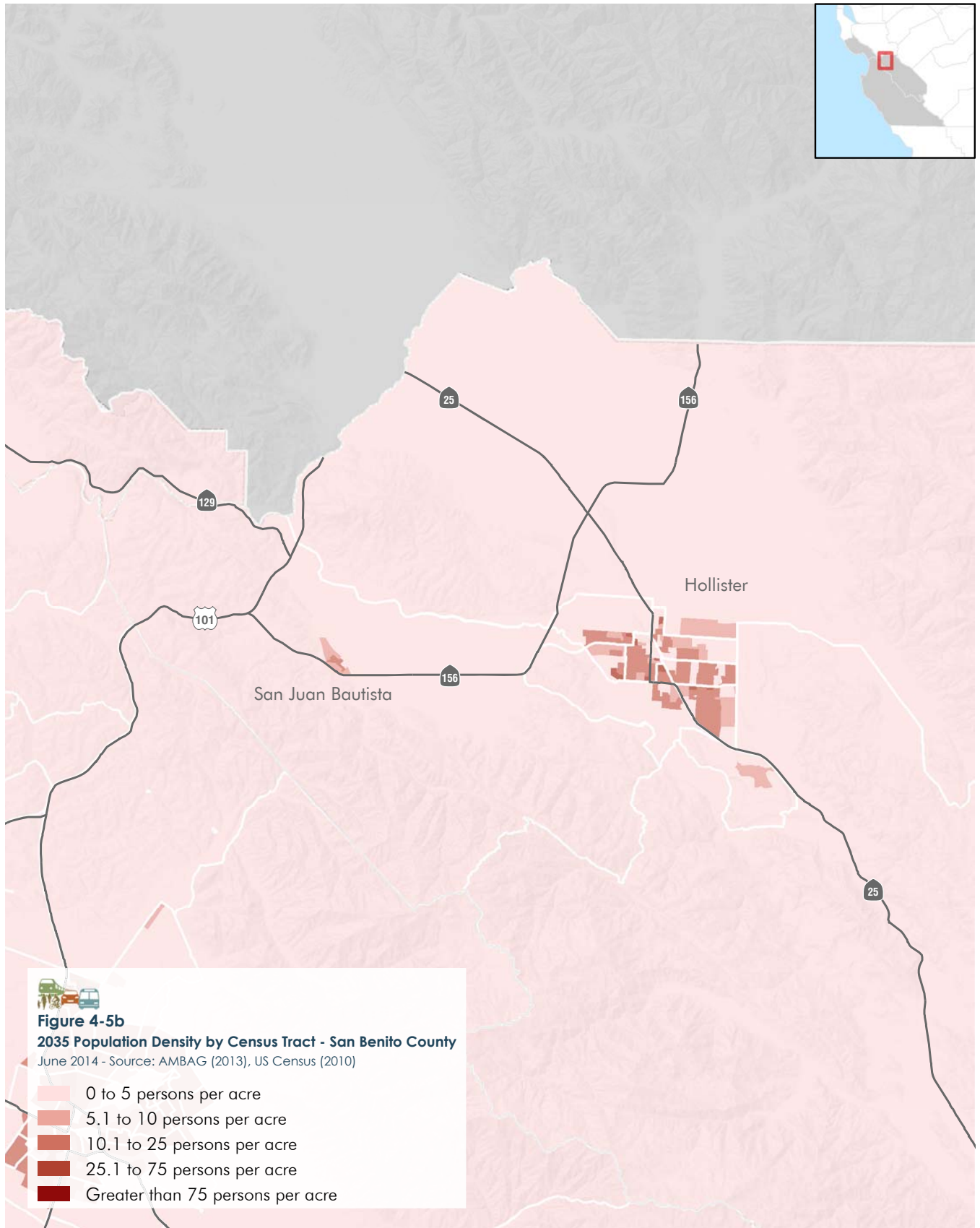
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**Figure 4-5a: 2010 Population Density by Census Tract
San Benito County**



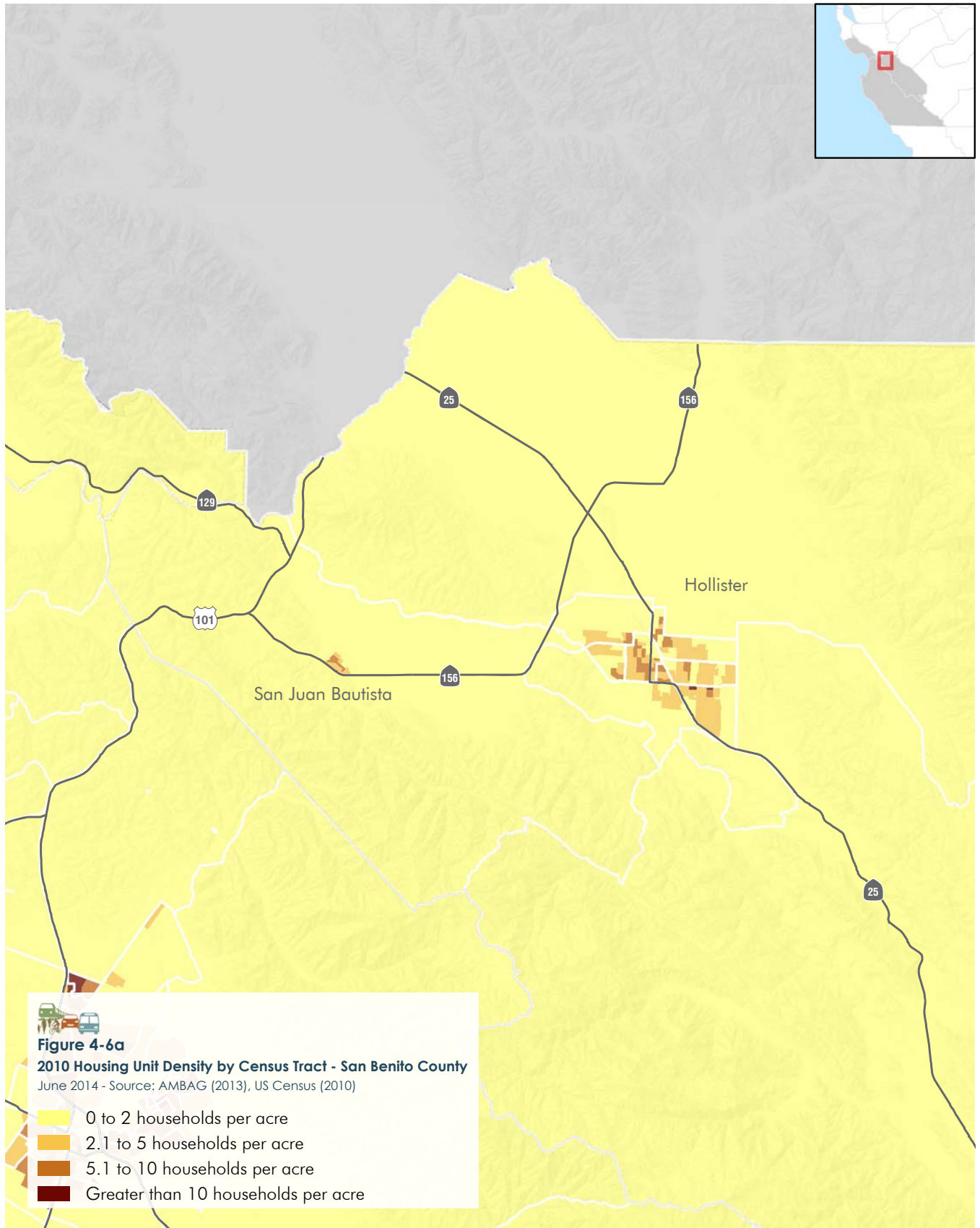
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**Figure 4-5b: 2035 Population Density by Census Tract
San Benito County**



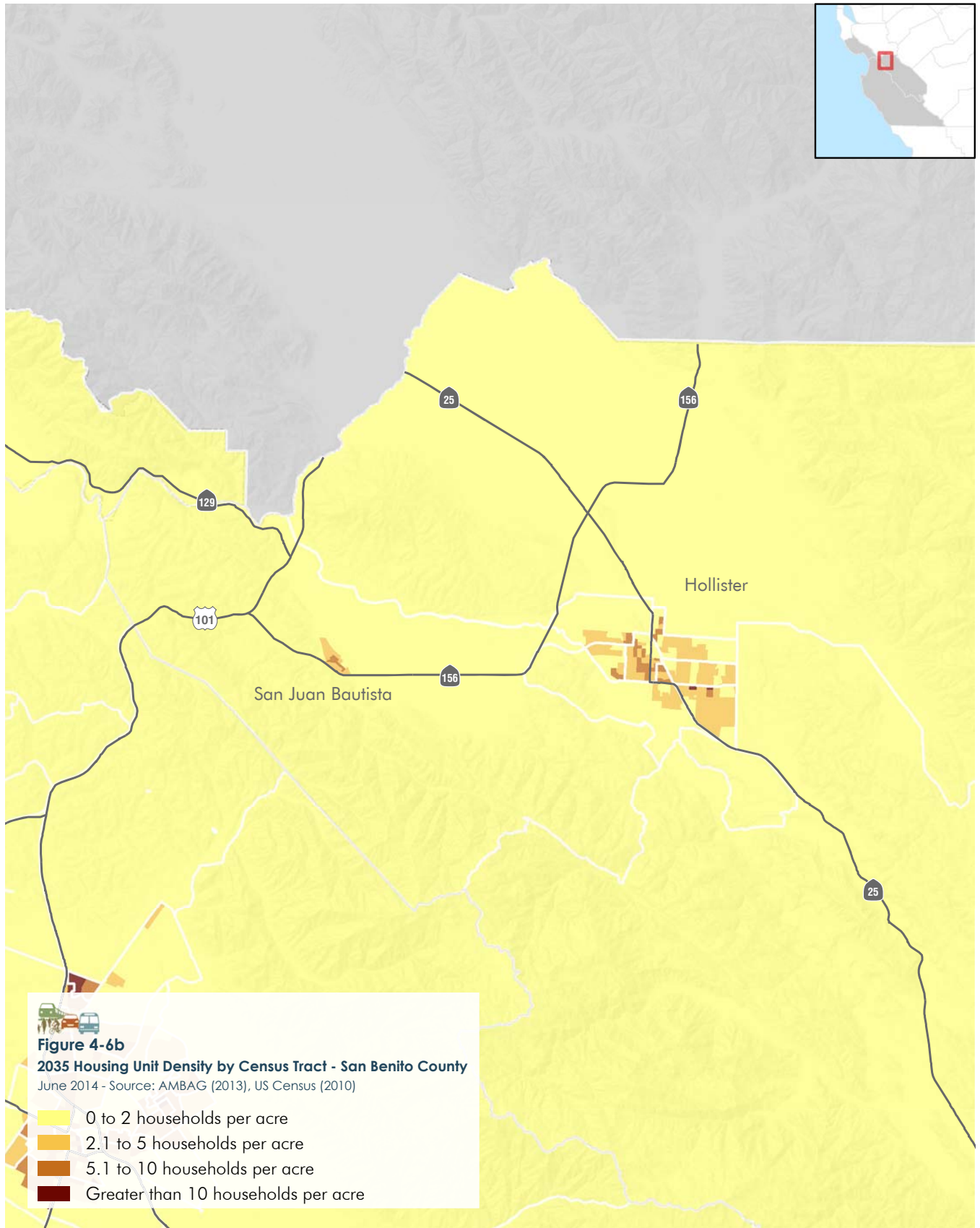
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**Figure 4-6a: 2010 Housing Unit Density by Census Tract
San Benito County**



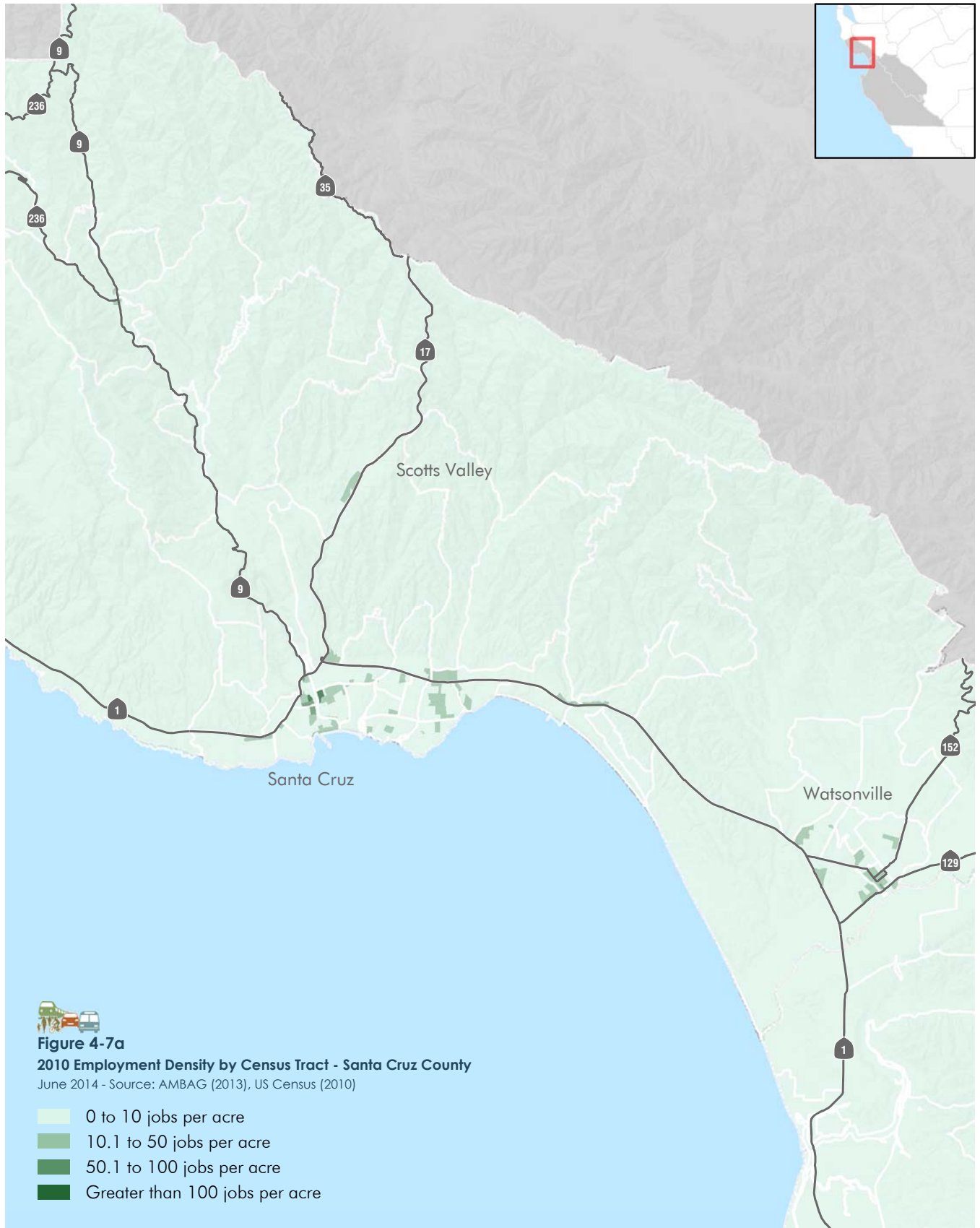
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**Figure 4-6b: 2035 Housing Unit Density by Census Tract
San Benito County**



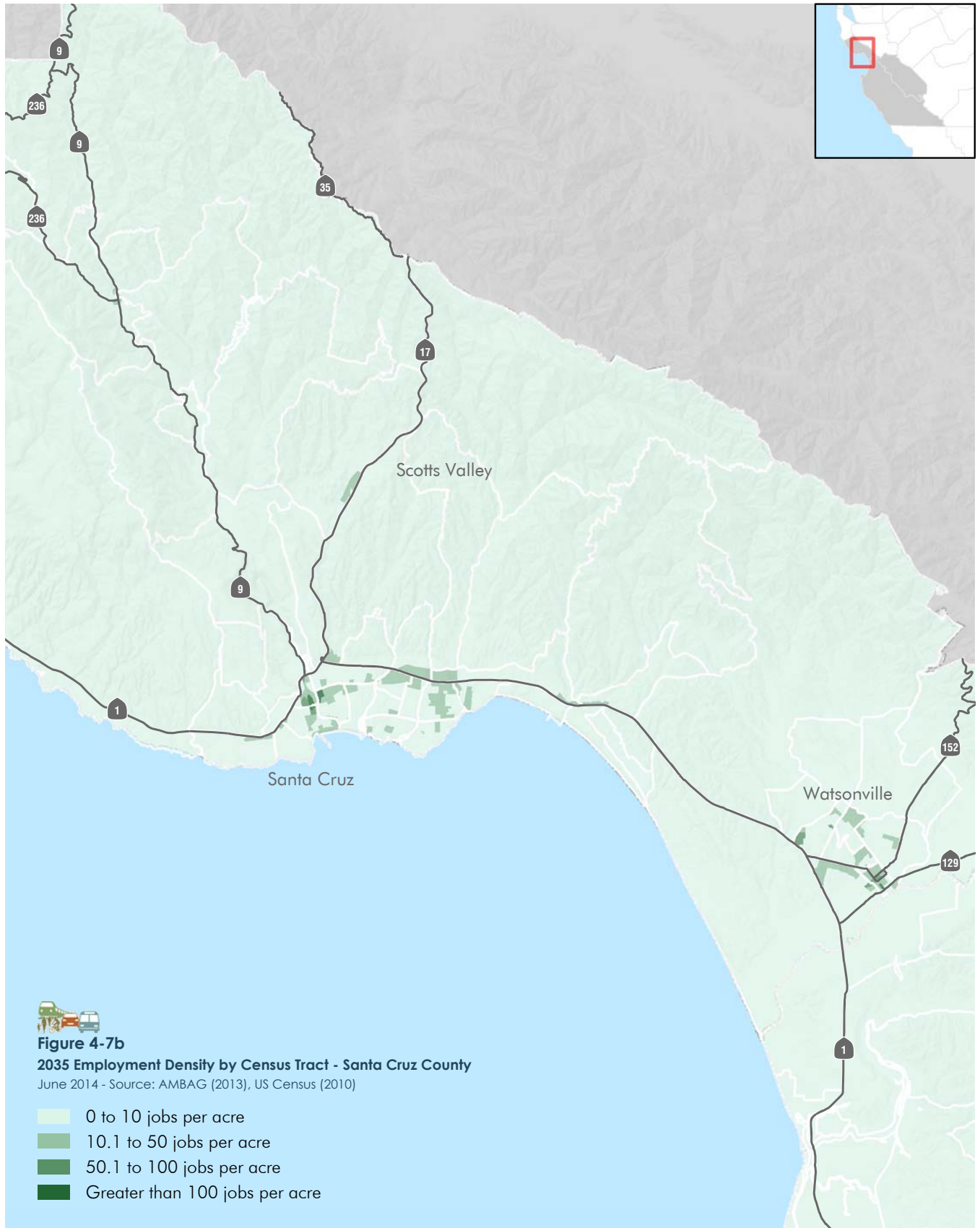
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**Figure 4-7a: 2010 Employment Density by Census Tract
Santa Cruz County**



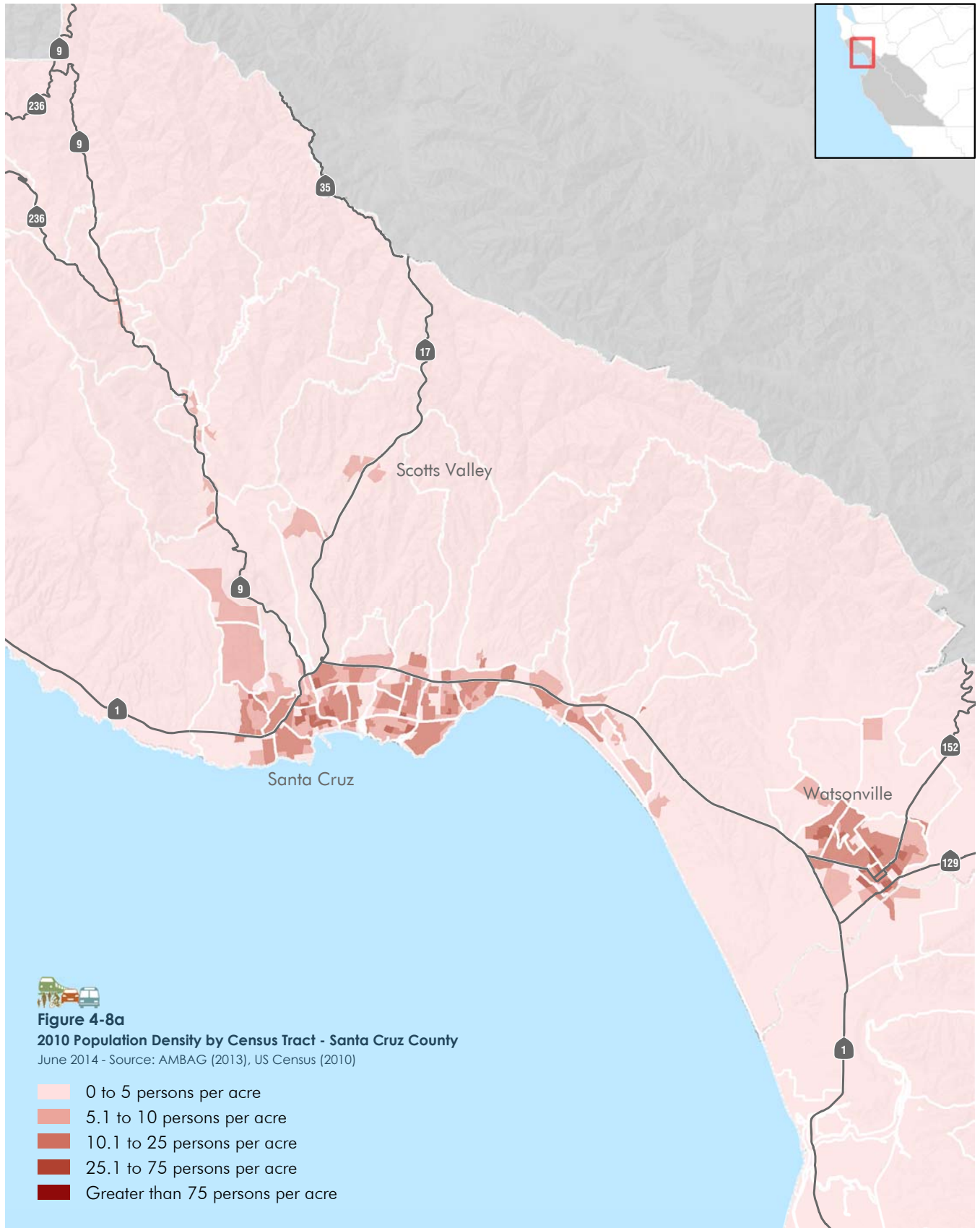
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**Figure 4-7b: 2035 Employment Density by Census Tract
Santa Cruz County**



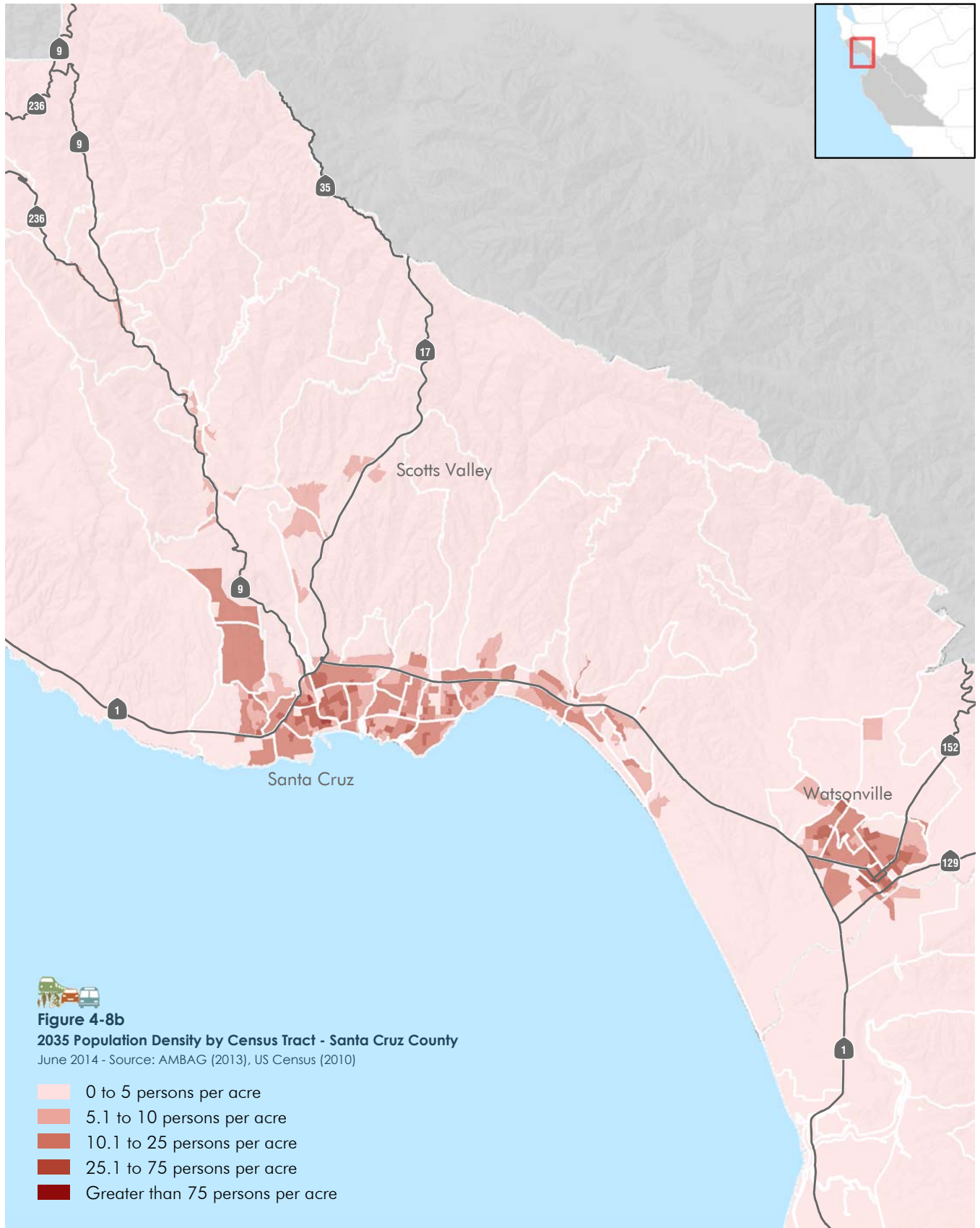
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**Figure 4-8a: 2010 Population Density by Census Tract
Santa Cruz County**



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**Figure 4-8b: 2035 Population Density by Census Tract
Santa Cruz County**



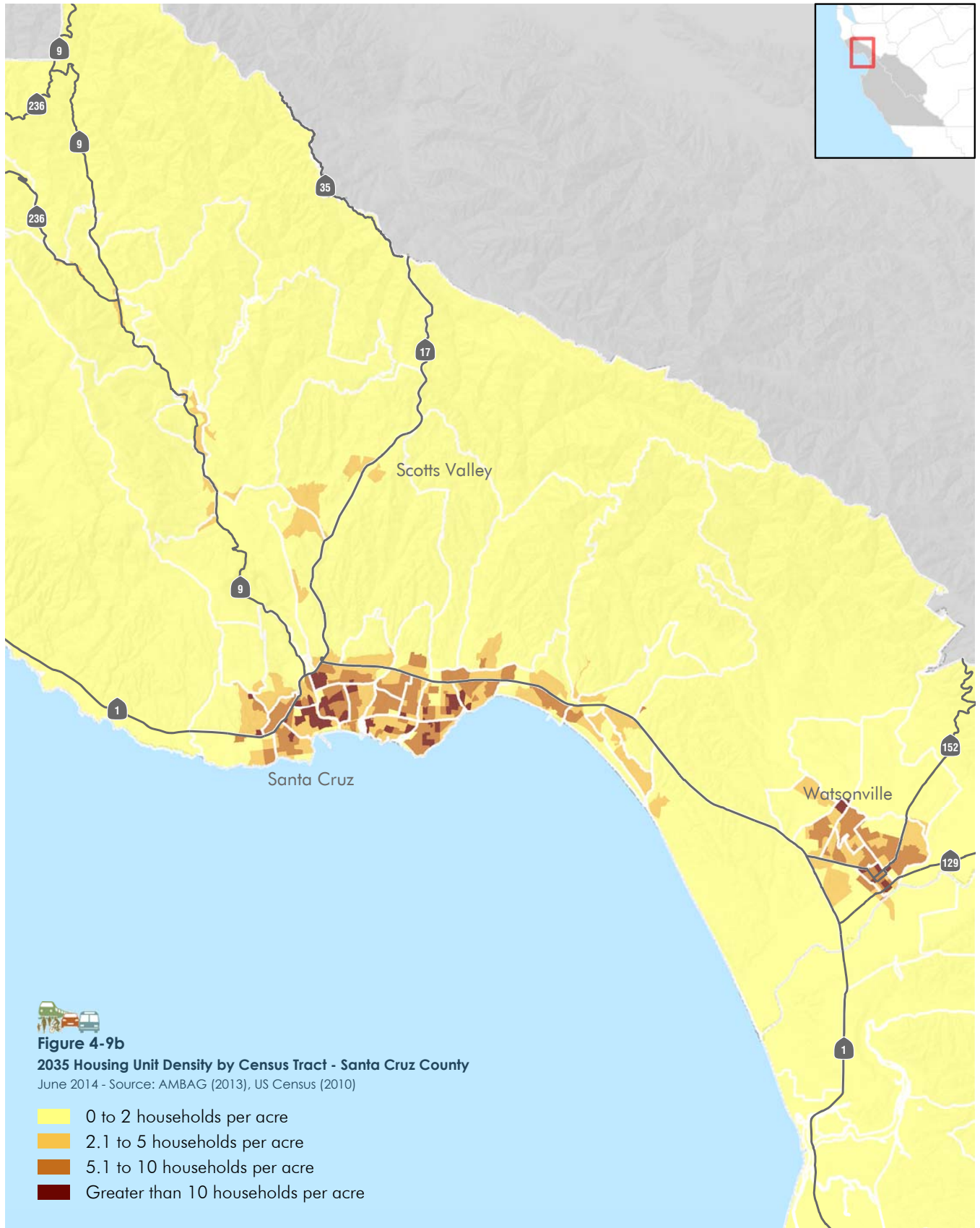
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**Figure 4-9a: 2010 Housing Unit Density by Census Tract
Santa Cruz County**



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**Figure 4-9b: 2035 Housing Unit Density by Census Tract
Santa Cruz County**



Overall Land Use Pattern

Land use patterns that provide a diverse mixture of goods and services in combination with residential uses have been shown to reduce vehicle miles traveled and thereby reduce greenhouse gas emissions. Combining mixed use development with infill development, rather than building on the fringes of urbanized areas, reduces greenhouse gas emissions by reducing the distance that people have to travel to get their basic needs met.

However, such smart growth strategies are not enough to encourage people to switch modes of travel from single occupant vehicles to transit, bicycling or walking. Transportation infrastructure that makes alternative modes more attractive also needs to be in place. For this reason the land use pattern in the SCS, as shown in Figures 4-10 through 4-12, assumes increased density via infill development and mixed use in existing commercial corridors in combination with high quality transit service, bus service that has headways of 15 minutes or less during the peak period or rail service. Figure 4-19 depicts the High Quality Transit Areas.

By combining increased density and accessibility to transit there is a higher likelihood that people will chose to use transit rather than drive. Additionally, these same corridors and the streets that connect to other neighborhoods are envisioned to have a greater investment in bicycle and pedestrian infrastructure such that people can chose to walk or bike for shorter distance trips. Making streets friendlier for all users of the network is the concept of complete streets that is being encouraged at the local level.

Past Planning Efforts

“Envisioning the Monterey Bay,” or the Blueprint for short, prepared by AMBAG in 2010, was the first regional effort to develop a coordinated vision of the future for the Monterey Bay Area. It described how the communities of the Monterey Bay Area could grow in a sustainable fashion over the next 25 years. It explored how the housing and transportation choices in the region can be expanded to provide a more compact land use

pattern with supportive infrastructure. The Blueprint set the stage for the dialogue that planners and community stakeholders have engaged in with the development of the SCS. At its core the Blueprint was an effort to educate ourselves about the options for sustainable growth as a region prior to implementing the mandates of SB 375.

Placetypes

To better analyze land use patterns and consider scenario alternatives, AMBAG created a set of placetypes which established a set of land use designations common to general plans for the three counties and 18 cities in the region. These placetype categories are meant to act as a common “language” so that the diverse general and specific plans across the Monterey Bay Area may be compared in a consistent and standard manner.

Development of the placetypes began with a review of the predominant land uses and development patterns in the Monterey Bay region, leading to the creation of initial placetype categories and a preliminary placetype matrix. The following metrics and characteristics were established as the primary determinants of placetype designations:

- Density – The general density of a particular land use, expressed as Floor to Area Ratio (FAR) and/or as dwelling units per acre
- Setting – The surrounding land use and development context
- Character – The urban and built form, including building placement, street pattern, and pedestrian or auto-orientation
- Transportation – The level of transit access, quality of the pedestrian environment, and presence of bicycle infrastructure

Based on these characteristics, a placetype matrix was created and placetype designation assignments were made. The assignment of placetypes was based primarily on existing land use designations, transit service maps, and aerial imagery, but also relied upon information from local jurisdiction. This application of placetypes was considered the baseline for the region.

High Quality Transit Corridors and Stops

SB 375 defines high quality transit corridor as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. Projects qualify as a transit priority project if they are within a ½ mile of a high quality transit corridor or a major transit stop. (GC 21155 (b)) A major transit stop is defined as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods. (GC 21064.3).

Given these definitions for the purposes of the SCS AMBAG has focused on corridors that meet the definition of high quality transit corridors as defined in SB 375. For the sake of consistency in this document major transit stops are referred to as high quality transit stops and include rail meeting the definition of the government code. Additionally, the service provided at major transit stops is referred to as high quality transit service.



As different scenarios were considered for the SCS these placetype designations were modified in coordination with different transportation investments. The final preferred scenario includes placetypes that transition commercial corridors into mixed use areas served by high quality transit. Outside of those mixed use areas the placetypes largely remain the same as the baseline.

Opportunity Areas

Senate Bill 375 also includes provisions for CEQA streamlining for developments that meet a specific set of criteria (per definition in California Public Resources Code Section 21155). At a minimum this criteria includes proximity to high quality transit. Areas that qualify for streamlining are called “opportunity areas.” A “Sustainable Communities Opportunity Area” is an area within ½ mile of an existing or planned “high quality transit corridor” (per definition in California Public Resources Code Section 21155(a)) or “major stop” (per California Public Resources Code Section 21064.3) that has the potential for transit oriented development including mixed use. High quality transit is service with headways of 15 minutes or less during peak period or rail service.

Economic Development

The Monterey Bay Area is comprised of a diverse population and has very distinct industries that support the local economy. While the tri-county area is considered a mid-sized region, there are many jurisdictions within the area that are small and relatively rural in nature. These areas are home to the region’s low income and minority populations as they are the most affordable places to live. These populations are responsible for the production of the agricultural goods that are generally considered to be the backbone of the region’s economy. Similarly, the tourism and hospitality industry, considered to be just as important as agriculture to the economy, is supported by thousands of low income minority workers. Despite the importance of these two industries to the region, jobs in these areas are mostly low income.

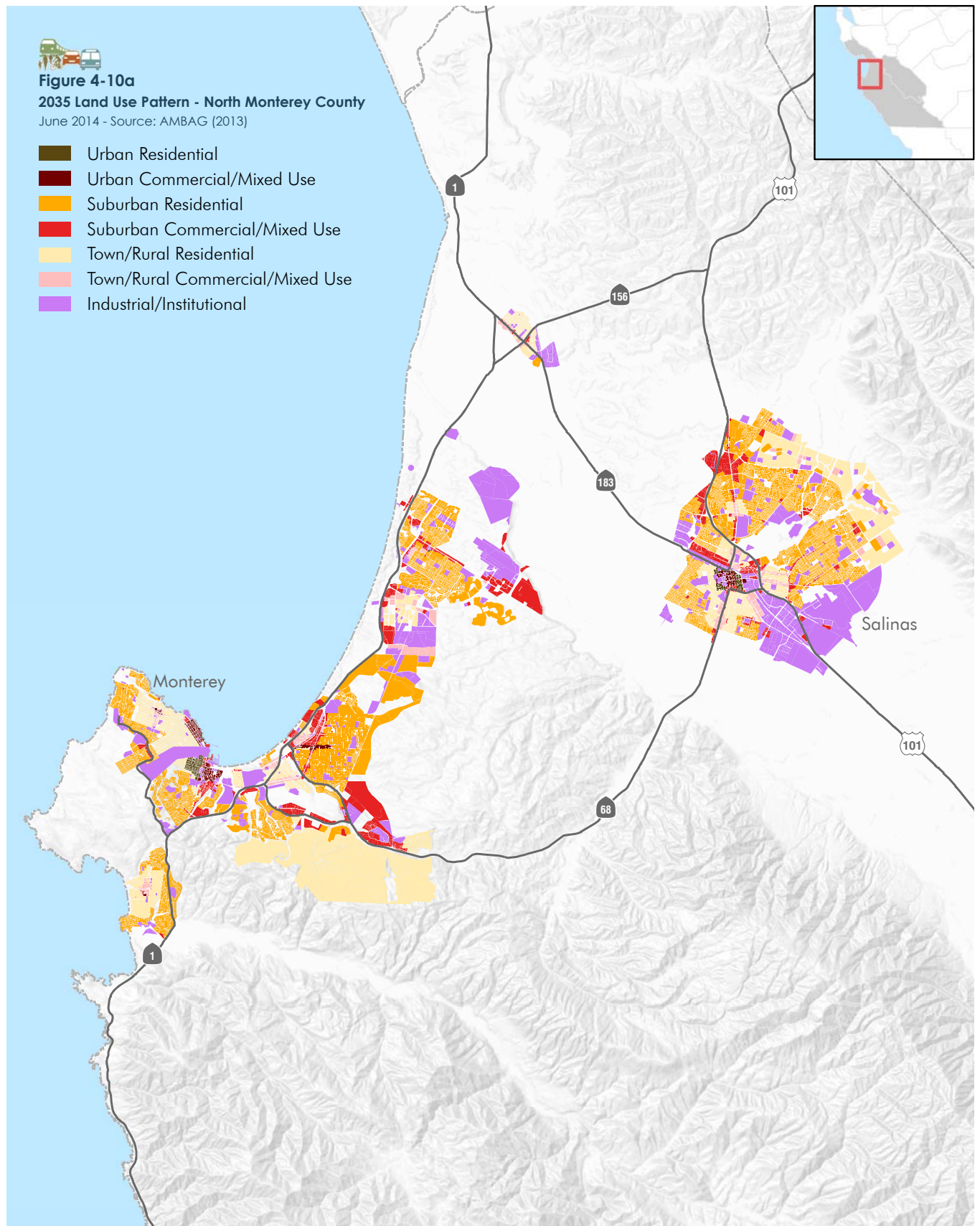
While low wage workers support and make possible the engine of the regional economy they tend to live in cities that struggle to collect enough revenue to support their residents with basic services. The land value in these cities is low compared to the coastal areas, people have access to fewer services, and are isolated from the more well-marketed tourist attractions near the ocean. Low land values, lack of infrastructure and small, dispersed populations make it difficult to attract development. Additionally, the jobs that provide the livelihood for many of these workers are far outside of the jurisdictions they live in. The combination of these factors creates a persistent jobs/housing imbalance within the region.

Often jobs/housing imbalances are tackled by implementing a combination of mixed use and infill development as well as increased transportation investment. However, applying this approach regionwide does not take into account the attractiveness of different markets for development in any given jurisdiction. Development markets are complex and land use policies or goals that do not consider the market potential for varying types of development will not be successful.

Previous studies have shown that these low cost areas may not yield a high enough residual land value for developers to find mixed use or residential development profitable. Assuming that development in the form of mixed use will help to address the need for jobs in low cost areas ignores the reality of market conditions. Changes in policy, construction costs, pricing, and other factors could help with long term financial feasibility of development in these areas.

In the short term, it may be appropriate to encourage commercial types of development in these areas as this type of development has been shown to yield higher residual land values, with a long term strategy towards mixed use. Until then, economic development policies that help to create jobs and attract commercial development could greatly benefit the population by providing better access to services as well creating jobs closer to their home.

Figure 4-10a: 2035 Land Use Pattern North Monterey County





Much of the AMBAG region is rural with dispersed land use patterns and very few job opportunities. The region's rural areas include large low income and minority populations that typically have long commutes to agricultural fields or to service and hospitality jobs in high cost coastal areas far away from home. This is the most difficult commute pattern in the region to address with transportation investments. Compounding the issue, rural populations are underrepresented in the regional planning process because of difficulties in engaging them which makes it challenging to design effective strategies to reduce VMT and greenhouse gases in rural areas. In order to implement the 2035 MTP/SCS, AMBAG will form a Rural Task Force to better inform the regional planning process of the needs in rural areas. AMBAG will work with rural cities and public agencies, non-profits and community organizations to ensure a broad cross section of rural stakeholders are represented on the Rural Task Force.

Traditionally economic development in this region has been the responsibility of each local jurisdiction. However, the mandates of SB 375 require the MPO to consider land use within the 2035 MTP/SCS. As a regional dialogue regarding the variety of land use in the region began, it became apparent that the transportation hurdles in the region cannot be addressed in isolation of the regional economy.

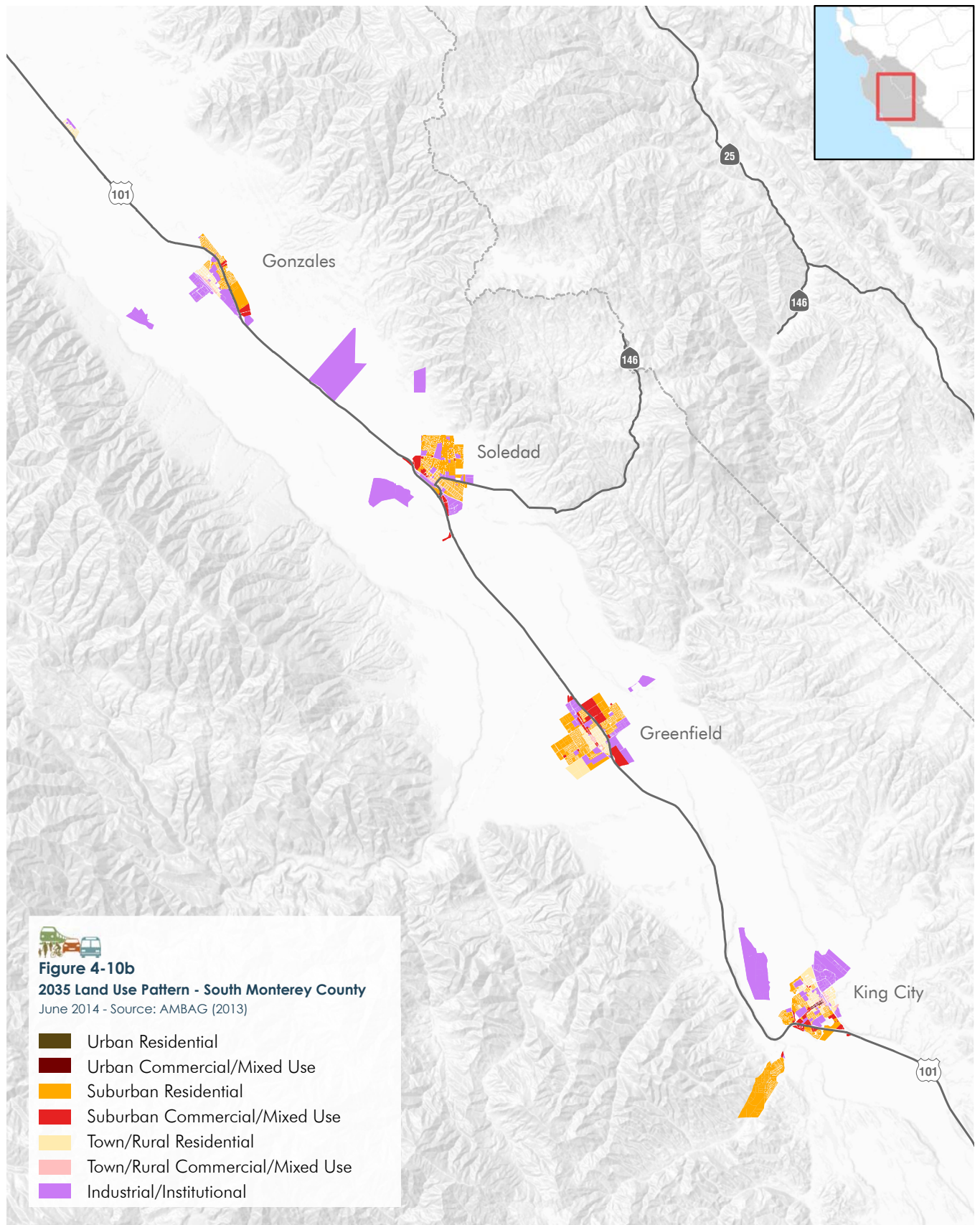
Previous analysis utilizing developer interviews regarding the feasibility of mixed use development in the region found that the highest barriers to development are fees, risks and uncertainties associated with the entitlement process. Fees exceed 10 percent of development costs in many jurisdictions in the region; this can prove cost prohibitive for mixed use development. To further exacerbate the issue, fees are higher in the mid to low cost areas of the region, where achievable price points are lower compared to the high cost areas of the region where achievable price points are higher. Fee reductions would reduce costs and thus enhance financial returns for new development.

Perceived uncertainty associated with the entitlement process also appears to be a barrier to new development. While developers may target a 15 percent return on cost, many would accept a lower return if risk and uncertainty were minimized. A reliable entitlement process could therefore enhance the feasibility of future development.

In addition to jobs/housing and land use policies, transportation strategies to provide alternative means to driving alone can also impact the regional economy. By providing better and more transportation alternatives the region can reduce the amount of money people must spend on transportation thereby injecting that same money back into the local economy.

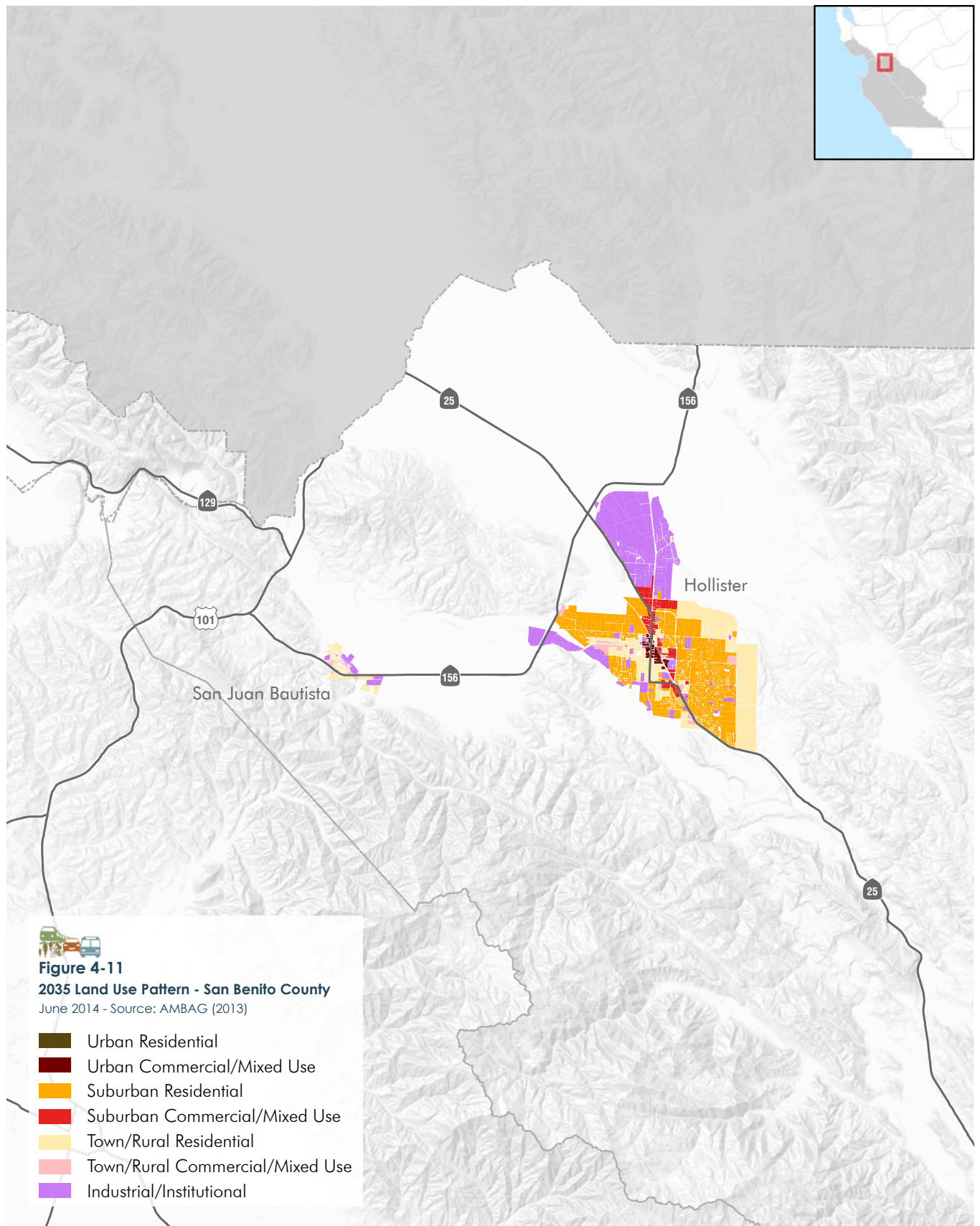
There are extreme differences in housing and economic characteristics of the jurisdictions within the region. To that end, the approach taken with land use and transportation investments should not be the same throughout the region. To achieve a higher quality of life and implement the policies and goals outlined in Chapter 1, it is important to invest more regional effort into understanding this diversity

Figure 4-10b: 2035 Land Use Pattern South Monterey County



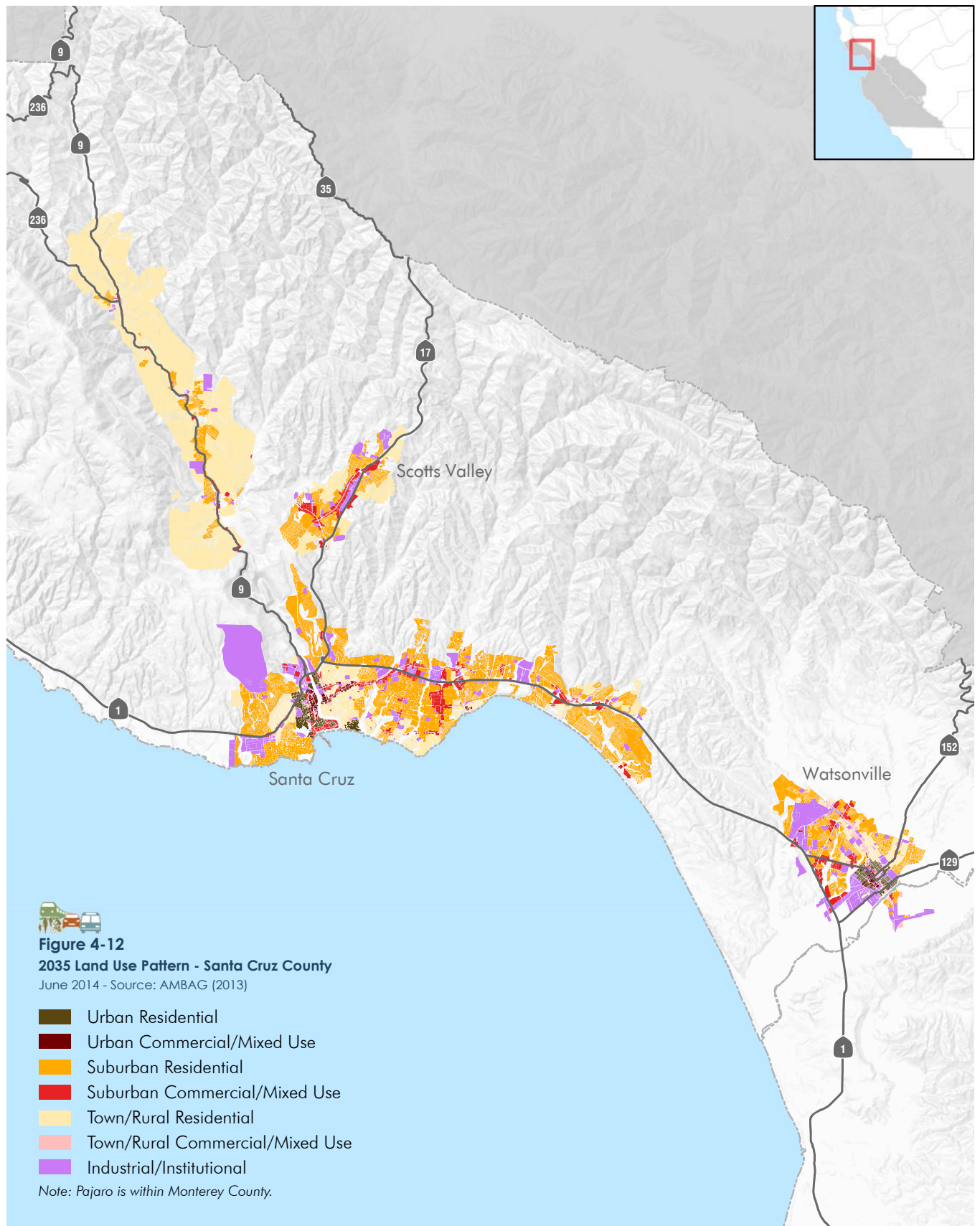
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Figure 4-11: 2035 Land Use Pattern San Benito County



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Figure 4-12: 2035 Land Use Pattern Santa Cruz County



so that regional land use and transportation strategies take into account and respond appropriately to the needs of all jurisdictions.

The implementation strategies included in this 2035 MTP/SCS include a series of strategies focused solely on economic development and better understanding the dynamics of rural and low cost areas so that the needs and interests of these populations are better reflected in the regional planning process.

Transportation System and Programs

Integrated Multimodal Network

The 2035 MTP/SCS calls for an expanded transportation network that will complement the overall land use pattern. Working together, these complementary land use and transportation strategies can significantly reduce GHG by increasing transit ridership, increasing walking and biking, and reducing the auto trips.

Transit

As shown in Figure 4-13, the 2035 MTP/SCS calls for an expansion of the public transit network and transit service on new and existing routes, resulting in greater transit accessibility and connectivity throughout the region. The 2035 MTP/SCS introduces bus rapid transit and rail passenger service in the region in key corridors. These include extension of the Capital Corridor to Salinas, light rail transit services on the Monterey Peninsula, and future passenger rail service in Santa Cruz County.

Roadways

The 2035 MTP/SCS includes strategic capacity and technology enhancements to existing highways (as shown in Figure 4-14) as well as local streets. These enhancements, combined with transit, rail, and active transportation improvements complement the preferred land use pattern and support the expected growth throughout the region. The overall land use pattern relies on the development of high quality transit stations and efficient transportation corridors, which leads to significant GHG reductions and

other benefits due to a higher walk/bike mode share, more transit use, and shorter auto trips.

Active Transportation

The 2035 MTP/SCS also includes a notable increase in the regional active transportation network. Figure 4-15 shows the bicycle network in 2035. Active transportation is an essential part of the region's transportation system, is low cost, does not produce greenhouse gases, can help reduce roadway congestion, and increases health and the quality of life of residents. Active transportation will receive over \$898 million or nearly 12 percent in available revenues under the 2035 MTP/SCS. This is a significant increase as compared to less than one percent of the available revenue in the 2010 MTP. This emphasis signifies an important opportunity to advance the goals of SB 375 by increasing non-motorized modes of transportation, thereby expanding access to transit and improving public health and air quality. The Regional Transportation Planning Agencies - Transportation Agency for Monterey County, Santa Cruz County Regional Transportation Commission and San Benito Council of Governments - worked closely with cities and counties to identify a list of projects that will add and enhance walking and biking facilities to make these modes more attractive for short distance trips, including trips to access transit. Additionally, the Regional Transportation Planning Agencies developed the Regional Complete Streets Guidelines to assist local jurisdictions in project design and implementation.

Programs and Strategies

In addition to infrastructure improvements to the transportation network there are less costly programs and strategies that can improve the flow of traffic on the transportation network as well as the effectiveness of the transportation system as a whole.

Transportation Systems Management

Transportation System Management (TSM) measures also support the goals of the 2035 MTP/SCS by making improvements to improve operational efficiency. These techniques contribute

Figure 4-13: 2035 Regional Transit Network



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Figure 4-14: 2035 Regional Highway Network



to improved traffic flow, better air quality, improved system accessibility, and safety. The following TSM measures support the forecasted land use development pattern of the 2035 MTP/SCS:

- Enhanced incident management
- Ramp metering
- Traffic signal synchronization
- Improved data collection

Transportation Demand Management

In addition to the transportation network, the 2035 MTP/SCS also relies on strategic and extensive Travel Demand Management (TDM) measures that support planned land use patterns. These cost-effective strategies improve the effectiveness of the transportation system by supporting a shift from single occupancy vehicle use to other alternatives. TDM measures will receive a total of more than \$46 million in available revenues.

The 2035 MTP/SCS employs the following TDM measures to improve mobility and access:

- Promoting telecommuting and flexible work schedules
- Complete streets improvements to increase first mile/last mile connectivity
- Expanding vanpool programs
- Expanding traveler information systems

Public Health

The 2035 MTP/SCS recognizes the impact that transportation and land use decisions have on the health of the region's residents. A substantial body of research shows that certain aspects of the transportation infrastructure, including public transit, sidewalks and safe street crossings near schools, and bicycle paths, are associated with more walking and bicycling, greater physical activity, and lower obesity rates. The Plan supports the integration of transportation and land use policies to promote improved public health. The 2035 MTP/SCS seeks to promote active transportation options,

and a decrease in bicycle and pedestrian fatalities and injuries through increased funding of active transportation facilities and transportation demand management measures.

The 2035 MTP/SCS also sets forth a vision for a less carbon intensive vehicle fleet. Through partial zero and zero-emission vehicle technologies, the 2035 MTP/SCS promotes a more sustainable future for the region that includes less tail pipe emissions from the vehicles that are on the road.

Energy and Alternative Fuels

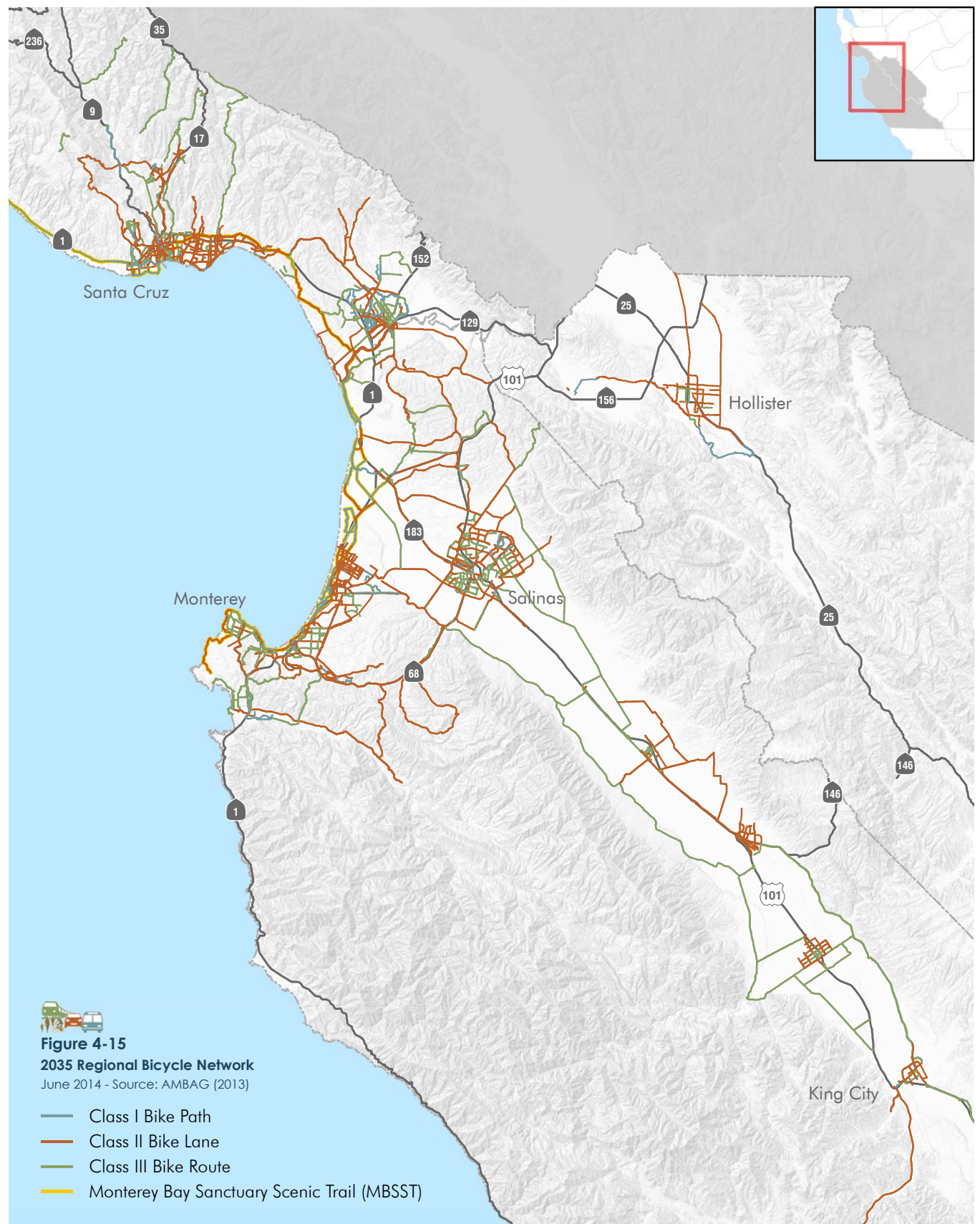
The transportation of people and goods in cars, trucks, buses, and on motorcycles is the single largest source of GHG emissions in the region. The levels of fuel consumption and GHG partly result from the region's reliance on petroleum-based gasoline and diesel fuels, as well as the average fuel efficiency of vehicles.

The region's need for gasoline and diesel is projected to decline from about 129 million gallons per day in 2010 to about 112 million gallons per day by 2035. (California Energy Commission, "Transportation Energy Forecasts and Analyses for the 2009 Integrate Energy Policy Report.") The projected reduction in fuel consumption is due in large part to state fuel efficiency standards for vehicles and state mandated increases in the supply and use of alternative transportation fuels. Electric vehicles in particular are an important alternative to conventional vehicles as they have the potential to reduce greenhouse gas emissions resulting from the consumption of fossil fuels, particularly in a state with a cleaner energy mix.

Increasing electric vehicle use will help achieve statewide policies aimed at reducing greenhouse gas emissions. California has a number of policies to encourage widespread adoption of electric vehicles.

AB 32 requires the state to reduce emissions to 1990 levels by 2020, and Executive Order S-3-05 calls for a 80 percent reduction below 1990 levels by 2050. Key elements of the state's AB 32 Scoping Plan for achieving these goals include the Zero

Figure 4-15: 2035 Regional Bicycle Network



SB 375 and Electric Vehicles

After AB 32 was signed into law the California Air Resources Board (CARB) developed a Scoping Plan which provides a regulatory approach to reduce emissions from all sources and sectors within the state including energy, transportation, water, construction, manufacturing, agriculture, etc. SB 375 enacts the first programmatic effort to meet California's climate change objectives under AB 32 through regional planning initiatives. However, SB 375 is strictly concerned with the reduction of greenhouse gas emissions from the transportation sector, specifically passenger vehicles, whereas AB 32 considers all sectors.

In discussions of how the region should meet its GHG targets, people often wonder why the region can not reach the targets by planning for more electric vehicles. AMBAG is involved in regional planning efforts to support electric vehicle infrastructure and has included it as part of the 2035 MTP/SCS. However, SB 375 is focused very specifically on the reduction of CO₂ emissions from cars and light trucks through the coordination of land use patterns and transportation improvements that result in reduced emissions. AB 32 and new Pavely fuel standards already propose separate regulatory changes for vehicle and light truck fuel emission and efficiency standards.

Emissions Vehicle Program and Low Carbon Fuel Standards. It is expected that as many as one-third of the fleet in California by 2030 will need to be made up of battery electric vehicles, plug-in hybrids, and fuel cell vehicles to help meet emissions reduction goals.

California Executive Order B-16-2012 seeks to have over 1.5 million zero emission vehicles on the road by 2025. The Electrification Coalition's Electrification Roadmap suggests that to reduce the transportation sector's reliance on oil, 75 percent of light duty vehicle miles traveled should be electrified by 2040. For the Monterey Bay Area, this would equate to more than 18 million daily miles driven by the region's residents.

California has also adopted a low carbon fuel standard that will require a reduction in the carbon intensity of California's transportation fuels by at least ten percent by 2020. This will be achieved by offering a variety of fuel options for personal vehicles that include electricity, natural gas, propane, and biofuels.

AMBAG has taken steps to assess what regional infrastructure is needed to accommodate more alternative fuel choices across the region. In 2010, AMBAG and other regional entities began developing the Electric Vehicle Infrastructure for the Monterey Bay Area Plan. This plan presents a siting prioritization method to help identify potential charging locations and presents a framework for establishing a robust electric vehicle charging network in the Monterey Bay Area. The siting analysis in the plan provides guidance to local and regional stakeholders based on potential demand for electric vehicle charging stations. The three major goals of the siting analysis are:

- Provide charging opportunities for plug-in electric vehicle owners that lack access to home charging.
- Extend the range of plug-in electric vehicle for intra- and interregional travel along various corridors.
- Maximize all electric miles by providing ample opportunities for charging while

minimizing the risk of stranded plug-in electric vehicles.

This study was the precursor to the Monterey Bay Plug-In Electric Vehicle Readiness Plan (2012), a comprehensive regional plan to promote plug-in electric vehicle adoption throughout the region.

In 2013, AMBAG and other regional organizations completed the Monterey Bay Plug-In Electric Vehicle Readiness Plan. The goal of this plan is to encourage the mass adoption of plug-in electric vehicles in the region and reduce greenhouse gas emissions by providing a toolbox of recommended approaches for public, private, and non-profit organizations. These tools range from innovative approaches to plug-in electric vehicle marketing and streamlining electric vehicle supply equipment permitting, to guidelines on establishing an electric vehicle fleet. The Readiness Plan identifies specific regional targets for significantly expanding plug-in electric vehicle adoption in the Monterey Bay Area by 2015, 2020, and 2025.

AMBAG Energy Watch Program

Within the Monterey Bay Area, the 21 local governments are committed to energy efficiency and climate planning and are working in collaboration with other local governments and their communities. It was through this shared vision of maximizing energy as a resource that the AMBAG Energy Watch program was developed in 2006. This program is funded by the California Public Utilities Commission and is a partnership of the AMBAG with Pacific Gas and Electric Company (PG&E).

The stated vision of the California Public Utilities Commission Long Term Energy Efficiency Strategic Plan for local governments is as follows: “By 2020, California’s local governments will be leaders in using energy efficiency to reduce energy use and global warming emissions both in their own facilities and throughout their communities.”

The diverse range of programs and services provided by AMBAG Energy Watch has been developed to serve this vision. As noted in the California Public Utilities Commission’s Long Term

Energy Efficiency Strategic Plan, California is the second largest GHG emitting state in the United States. And within California, electricity production is the second largest source of GHG emissions. Maximizing energy efficiency is a critical strategy in the reduction of GHG emissions.

The AMBAG Energy Watch programs are designed in two major categories. The first category is implementation programs. These programs achieve direct and measurable energy efficient targets through the installation of energy efficiency equipment. These programs have been developed to serve the diverse stakeholders in the region including residents, municipalities, special districts, non-profit organizations, agriculture, school districts and hospitality businesses. The second category of programs is in the area of climate planning support for jurisdictions. The AMBAG Energy Watch program worked collaboratively with staff from each of the 21 AMBAG jurisdictions to complete each jurisdiction’s 2005 municipal and community-wide greenhouse gas inventory, as well as their 2009 and 2010 community-wide greenhouse gas inventory updates. This data was used in the creation of a draft community-wide Energy Action Strategy (EAS) developed for each of the jurisdictions, which in some cases were incorporated into their Climate Action Plans.

Climate Change and Adaptation

The transportation sector has been identified as a key contributor of GHGs, but also is threatened by the impacts of continued climate change. The Monterey Bay region is expected to change, even under the most optimistic scenarios, due to climate change. Potential impacts include more frequent and intense heat waves and wildfires, rising sea levels and higher storm surges, the loss of native plant and animal species, and a higher demand for electricity, particularly during peak periods. Developing and implementing measures to help the region adapt to these potential changes will be critical in protecting the regional transportation network.



The region's open space is at the crux of its tourist economy. Preserving it is a high priority for residents and businesses.



Agriculture is the economic engine of the region and is an important asset to preserve.

More frequent hot days and prolonged periods of extreme heat will increase the risk of buckling highways and railroad tracks. This could lead to increased and more frequent maintenance costs, premature deterioration, or even the failure of some transportation infrastructure. More frequent and severe wildfires that are followed by rainfall would increase the risk of mudslides and erosion. This could disrupt major infrastructure such as roadways and rail lines. Rising sea levels and stronger storm surges would likely impact communities, roadways, railways, and other vital lines of coastal transportation. Existing fortifications may need to be enhanced as sea levels rise and storm surges intensify, and areas not previously considered at risk may need to be protected. Preparing transportation infrastructure for climate change impacts is a new priority as future projects are designed and the current system is maintained.

The tools and methodologies for evaluating and adapting to such impacts are still in the early stages of development and will require ongoing monitoring.

Resource Areas, Farmland, and Mitigation

Central coast residents share a strong attachment to the region's open spaces and are economically dependent on the accessibility of this open space. Equally important to the region's economic wellbeing are the thousands of acres of farmland that produce billions of dollars' worth of berries and other produce. In addition to identifying areas where development is projected to occur, the SCS identified protected parklands and open space, natural resource areas, and farmland using the best practically available scientific information.

Of the 3.3 million acres within the Monterey Bay region, about 20 percent have been previously conserved as parks or open space and are included in the SCS land use pattern. These lands range from public use parks to rural open space and U.S. Forest Service Lands. As part of this regional greenprint analysis, AMBAG assembled and applied the following additional data layers.

- Protected, sensitive, or special status species as defined by local, state or federal agencies
- Lands subject to conservation, agricultural easements and the Williamson Act and areas designated by the State Mining and Geology Board as areas of statewide significance
- Areas designated for open space or agricultural uses in local general plans
- Farmland classified as prime or unique or of statewide importance or designated
- Areas containing biological resources
- Administrative boundary restrictions
- Habitat connectivity

Figures 4-17 and 4-18 show the location of these parks, open space, and farmlands.

Protecting the Region's Natural Resources

The SCS land use pattern incorporates adopted habitat plans as well as the conservation of other sensitive resource lands such as steep slopes, wetlands, and floodplains as reflected in plans by local jurisdictions. These local and regional plans ensure the conservation of plant and animal species, and natural habitats through low density zoning, conservation easements, and land purchases.

One of the largest habitat plans to date is the Fort Ord Habitat Management Plan which will eventually become the Habitat Conservation Plan. In 1997, after the closure of the former Fort Ord, the Fort Ord Reuse Authority made a commitment to conserve nearly two-thirds of the former army base as open space. The Habitat Management Plan is primarily funded by federal, state, and local government annual appropriations, whereas the Habitat Conservation Plan would also provide additional habitat management resources through collection of Fort Ord Reuse Authority Development Fees or Community Facilities District Special Tax payments from reuse of the former Fort Ord.

The Habitat Management Plan does not provide incidental take coverage of state and federal listed species to state and local entities, whereas the Habitat Conservation Plan, if approved by federal and state Wildlife Agencies, would provide incidental take coverage for a period of 50 years to allow restoration of sensitive habitats and a regional framework for habitat protection and base reuse. Figure 4-16 shows the location of the region's natural resources.

Construction Aggregate

In addition to natural habitat the region is home to another important resource, aggregates. Aggregates are used in variety of construction projects, such as, roads, bridges, streets, bricks, and concrete. Every town and city, along with every road connecting them are built and are maintained with aggregates. More than 90 percent of asphalt pavements and 80 percent of concrete are aggregates. Natural aggregates make up the largest component of nonfuel mineral materials consumed in the United States. In highways, natural aggregates are mixed into asphalt and concrete and are used as road base. In addition to construction projects, many items such as, paint, paper, plastics, and glass also require sand, gravel, or crushed stone. Aggregates are also used as soil erosion control programs and water purification. In addition to new resources, aggregate product can be recycled and repurposed into new construction projects.

Historic mineral production within the Monterey Bay Area included sand and gravel mining for construction materials, mining for industrial materials (diatomite, clay, quartz, and dimension stone) and metallic minerals (chromite, placer gold, manganese, mercury, platinum, and silver). The public depends on several categories of minerals found in Monterey, San Benito, and Santa Cruz Counties for a variety of everyday uses. For example, minerals such as sand and gravel are used to make concrete for buildings and asphalt to pave roads.

Natural aggregates, which consist of crushed stone and sand and gravel, are among the most abundant natural resources and a major basic

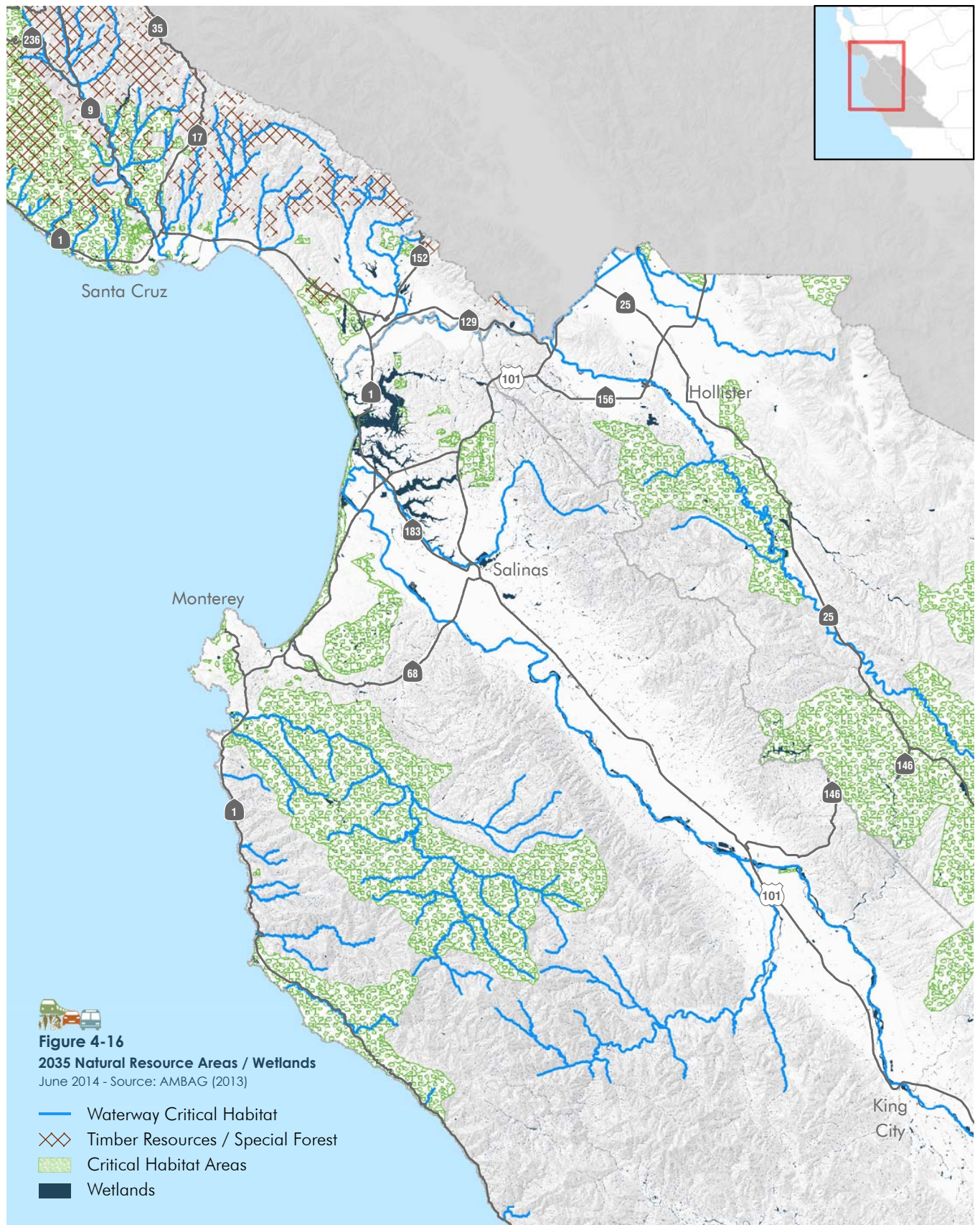
raw material used by construction, agriculture, and industries employing complex chemical and metallurgical processes. Despite the low value of the basic products, natural aggregates are a major contributor to and an indicator of the economic well-being of the nation. Of the non-metallic minerals, construction-grade aggregate is the most abundant and commonly used mineral resource in Monterey County.

Protecting the Region's Farmland

The Farmland Mapping and Monitoring Program, administered by the Division of Land Resource Protection at the California Department of Conservation, produces maps and statistical data to analyze impacts to California's agricultural resources. To characterize existing and potential farmland, agricultural lands are rated according to soil quality and irrigation status. Farmland Mapping and Monitoring Program maps are updated every two years using aerial photographs, a geographic information system, public review, and field reconnaissance. Lands important for agriculture are placed in one of four categories of productivity established by the United States Department of Agriculture. These lands are categorized according to their specific qualities of soil, slope, degree of wetness, flooding hazards and other factors. Within the Monterey Bay region, the Farmland Mapping and Monitoring Program has identified 313,188 acres of land as "Important Agricultural Lands" combined with Williamson Act Lands. The Monterey Bay Area has a total of 1,668,261 acres of preserved agricultural land which represents 51 percent of the region's total land area.

These lands are reflected in the SCS land use pattern and they are not threatened due to zoning ordinances or the purchase of land for conservation easements. In the SCS land use pattern, 97 percent of the region's existing agricultural land is expected to remain available for agriculture. Ninety-six percent of the region's agricultural land is planned for agricultural use only, and less than one percent is planned as low density, rural residential land that allows and often encourages agricultural use.

Figure 4-16: 2035 Natural Resource Areas



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Figure 4-17: 2035 Open Space



Figure 4-18 includes agricultural preserves such as areas under Williamson Act contracts. The California Land Conservation Act, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners to restrict specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments which are much lower than normal because they are based upon farming and open space uses as opposed to full market value.

Environmental Mitigation

Transportation investments have the potential to impact the environment both positively and negatively. The 2035 MTP/SCS has been extensively evaluated for its potential impacts as part of the required California Environmental Quality Act (CEQA) environmental review. The evaluation is available as the Environmental Impact Report.

In order to minimize the negative environmental impacts of transportation projects, mitigation of impacts may be necessary. Regional mitigation efforts rather than the traditional project-specific mitigation provide the greatest benefit for habitat and wildlife by leveraging resources available across a larger geographic area. Regional mitigation can result in conserving larger, scarce, multi-resource ecosystems and increase habitat connectivity which improves both the quantity and quality of habitat. AMBAG and its partner agencies are making efforts to collect data on mitigation opportunities and engage in early consultation with resource agencies in order to improve opportunities for and results of mitigation measures.

The Regional Ecological Framework Project was funded by the Strategic Highways Research Program 2, and based on Transportation Research Board Integrated Ecological Resource Framework Research (C06). The Regional Ecological Framework Project produced a series of maps identifying sensitive resource areas near planned regional transportation projects in the Monterey Bay Area Region, promoting early mitigation and better project planning among transportation agencies.

By providing awareness of potential environmental conflicts early in the project development process, these maps allow transportation agencies throughout the region to engage in earlier consultation with resource agencies such as the Environmental Protection Agency, the US Army Corps of Engineers, the US Fish and Wildlife Service, and other resource agencies. This early consultation allows project proponents to adjust their projects to avoid impacting sensitive resources, reducing environmental impacts, allowing projects to move forward with fewer delays, speeding project implementation, and mediating increased project costs associated with extended environmental mitigation.

Accommodating the Region's Housing Needs

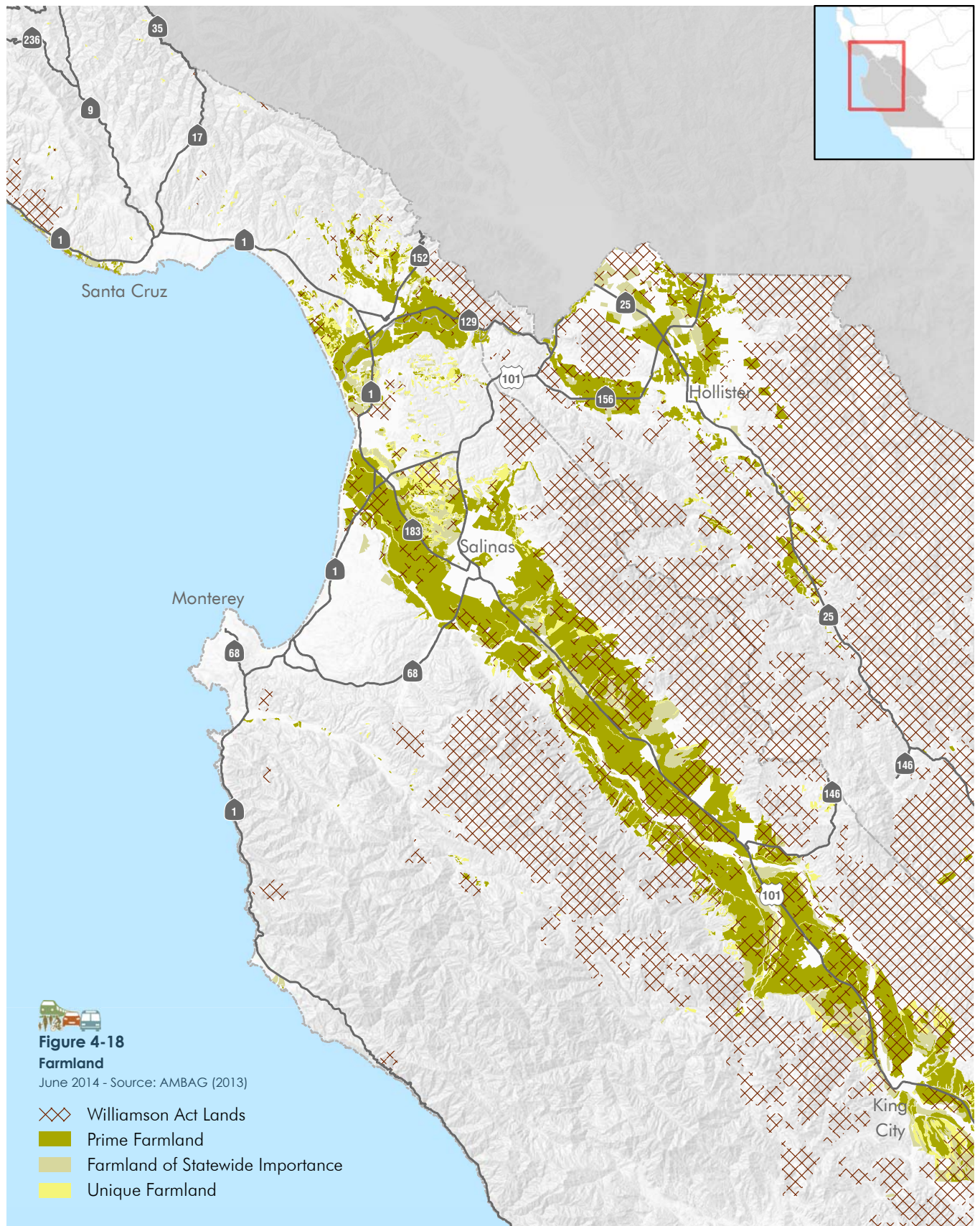
The SCS land use pattern accommodates an estimated 42,000 new households that will be needed over the next 25 years to serve a projected growth in of 152,000 additional people.

The SCS land use pattern addresses the needs of all economic segments of the population. Based on the capacity for planned housing development the region will be able to accommodate the projected housing needs for residents of all income levels.

Regional Housing Needs Assessment

California Housing Element law requires AMBAG to develop a methodology for distributing projected housing need in four income categories – very low, low, moderate, and above moderate – to local jurisdictions in Monterey and Santa Cruz Counties and sets forth a process, objectives and factors to use for that methodology. The Council of San Benito County Governments performs this function for San Benito County. This process, the Regional Housing Needs Allocation (RHNA), is coordinated by the California Department of Housing and Community Development (HCD).

Figure 4-18: 2035 Farmland





In the past, the RHNA was conducted separately from the MTP process. SB 375 now links the RHNA and MTP/SCS processes to better integrate housing, land use, and transportation planning. Integrating processes helps ensure that the state's housing goals are met. The RHNA occurs before each housing element cycle, which SB 375 changed from a five-year to an eight-year cycle.

The AMBAG region received its RHNA Determination (for Monterey and Santa Cruz counties) from HCD for the housing element cycle (2014-2023), as shown in Table 4-2. The AMBAG RHNA Plan allocates the RHNA Determination by jurisdiction. (For the San Benito RHNA, refer to the San Benito Council of Governments RHNA Plan.) Based on the RHNA Plan each jurisdiction will need to identify adequate sites to address its RHNA allocations in the four income categories when updating its housing element. Housing elements are due no later than 18 months after the AMBAG Board adopts the 2035 MTP/SCS, or December 2015.

Table 4-1 shows that Monterey and Santa Cruz Counties have enough housing capacity to accommodate the RHNA allocations. San Benito County also has the housing capacity to accommodate the RHNA as described in the San Benito RHNA Plan. The allocations do not exceed forecasted growth and can be accommodated through infill and redevelopment. The AMBAG and SBtCOG RHNA Plans are consistent with the 2035 MTP/SCS.

Meeting GHG Targets

On September 23, 2010, CARB set targets for lowering GHG in the Monterey Bay region. They call for a zero percent increase, in per capita GHG emissions from passenger vehicles by 2020 (compared with 2005); and a five percent per capita reduction by 2035 through land use and transportation planning.

The 2035 MTP/SCS demonstrates that the Monterey Bay region will meet these targets by focusing housing and employment growth in urbanized areas; protecting sensitive habitat and open

Table 4-1: Housing Capacity from Adopted Housing Elements

Jurisdiction (Date of Last Housing Element Adoption)	Estimated Total
Monterey County Total	20,059
Carmel (2007-2014)	180
Del Rey Oaks (1992)	undetermined
Gonzales (2007-2014)	468
Greenfield (2000-2007)	908
King City (2007-2014)	1,387
Marina (2008-2014)	3,119
Monterey (2009-2014)	864
Pacific Grove (2007-2014)	237
Salinas (2007-2014)	6,578
Sand City (2009-2014)	308
Seaside (2009-2014)	1,134
Soledad (2009-2014)	1,143
Monterey County (2009-2014)	3,733
Santa Cruz County Total	12,971
Capitola (2007-2014)	233
Santa Cruz City (2007-2014)	1,368
Scotts Valley (2009-2014)	1,112
Watsonville (2008-2013)	950
Santa Cruz County (2009-2014)	9,308

Table 4-2: RHNA Housing Allocation

Geography	Total Allocation	Very Low (24.103%)	Low (15.75%)	Moderate (18.249%)	Above Moderate (41.897%)
AMBAG Region	10,430	2,514	1,642	1,905	4,369
Monterey County	7,386	1,780	1,162	1,349	3,095
Carmel-By-The-Sea	31	7	5	6	13
Del Rey Oaks	27	7	4	5	11
Gonzales	293	71	46	53	123
Greenfield	363	87	57	66	153
King City	180	43	28	33	76
Marina	1,308	315	206	239	548
Monterey	650	157	102	119	272
Pacific Grove	115	28	18	21	48
Salinas	2,229	537	351	407	934
Sand City	55	13	9	10	23
Seaside	393	95	62	72	164
Soledad	191	46	30	35	80
Balance Of County	1,551	374	244	283	650
Santa Cruz County	3,044	734	480	556	1,274
Capitola	143	34	23	26	60
Santa Cruz	747	180	118	136	313
Scotts Valley	140	34	22	26	58
Watsonville	700	169	110	128	293
Balance Of County	1,314	317	207	240	550

Source: AMBAG, Regional Housing Needs Allocation Plan: 2014-2023. Scheduled for adoption June, 2014.

space; and investing in a transportation system that provides residents, workers and visitors with transportation options that are more effective and diverse.

Additionally, the 2035 MTP/SCS includes economic development strategies to encourage job growth in communities that are currently job poor as well as planning for new housing in communities that are currently job rich help to address the jobs/housing imbalance in the region and reduce vehicle miles traveled. The process to develop the Plan was based upon modeling these forecasted land use patterns and future transportation networks, along with the use of sustainable development principles that have been standard planning practice in the region for some time, and an extensive public outreach process.

California Environmental Quality Act (CEQA) Streamlining

Provisions in SB 375 include opportunities for streamlining the CEQA process, when certain conditions are met, as an incentive for implementing projects that are consistent with this SCS. Generally, there are two types of projects for which CEQA requirements can be streamlined, once the MPO adopts an MTP/SCS that meet the greenhouse gas targets established by CARB:

- Transit priority projects streamlining
- Residential/mixed use projects streamlining

SB 375 includes specific requirements for the CEQA streamlining. The discussion below provides a general outline of the requirements.

Transit Priority Projects

A Transit Priority Project (TPP) is a project within an Opportunity Area and is eligible for CEQA streamlining if it is:

- Consistent with the SCS;
- Contains at least 50 percent residential use;

- Proposed to be developed at a minimum 20 dwelling units per acre; and
- Located within one half mile of a major transit stop or high quality transit corridor that is included in the MTP.

A “Sustainable Communities Opportunity Area” is an area within one half mile of an existing or planned “high quality transit corridor” or “major stop” that has the potential for transit oriented development including mixed use. High quality transit is service with headways of 15 minutes or less during peak period or rail service. Figure 4-19 depicts the High Quality Transit Areas.

If a project meets these criteria, it may be analyzed under a new environmental document created by SB 375, called the Sustainable Communities Environmental Assessment, or through an EIR for which the content requirements have been reduced. Alternatively, a TPP can be considered a Sustainable Communities Project and be eligible for a new full CEQA exemption if it further meets the additional requirements beyond the base criteria.

Residential/Mixed Use Projects Consistent with the SCS

Residential and mixed use projects that are consistent with the SCS qualify for streamlined CEQA review if at least 75 percent of the total building square footage consists of residential use or if the project is a Transit Priority Project (TPP). If a project meets these requirements and is consistent with the use designation, density, building intensity and applicable policy of the SCS, any environmental review conducted will not be required to discuss:

- Growth inducing impacts;
- Any project-specific or cumulative impacts from cars and light duty truck trips generated by the project upon its completion on climate change or the regional transportation network; or
- A reduced density alternative.

Figure 4-19: 2035 High Quality Transit Corridors



It is not known how many projects in the Monterey Bay Area would meet the criteria to qualify for the CEQA exemption or streamlining. Lead agencies (including local jurisdictions) maintain the discretion and will be solely responsible for determining consistency of any future project with the SCS.

Implementation Strategies

The 2035 MTP/SCS is first and foremost a transportation plan. However, the transportation network in the 2035 MTP/SCS and the growth patterns envisioned must complement each other. Integration of transportation and land use is essential for improved mobility and access to transportation options.

To encourage implementation of the SCS, SB 375 provides CEQA incentives for development projects that are consistent with the regional SCS and help meet greenhouse gas emission reduction targets. Lead agencies (including local jurisdictions) maintain the discretion and will be solely responsible for determining consistency of any future project with the SCS. Cities and counties maintain their existing authority over local planning and land use decisions.

Additionally, to achieve the goals of the 2035 MTP/SCS, public agencies at all levels of government may implement a wide range of strategies. Table 4-3 list specific strategies that AMBAG, RTPAs, local jurisdictions, and other stakeholders may consider in order to successfully implement the SCS.

Table 4-3: Implementation Strategies

Strategy	Responsible Party
Economic Development	
Encourage infill housing by working with local jurisdictions to update municipal policies, such as reduced fees tax credits or exemptions, graduated density bonuses, and reduced parking requirements for redevelopment, affordable housing, or mixed use in Opportunity Areas.	AMBAG; local jurisdictions
A taskforce should be created to understand and address the economic development and transportation needs of rural areas. The following topic areas are suggested areas to be further explored by the task force: 1) Land Use and Conservation: policies and plans that shape rural areas; 2) The Infrastructure of Agriculture: transportation challenges to the production process; 3) Economic Opportunities: new ways to grow revenue and support better access to jobs; 4) Forest Management: building up economic and environmental value; and 5) Regulations: navigating federal and state environmental guidelines. Once the task force is convened the scope, responsibilities, and role of the group will be further defined.	AMBAG; economic development agencies and non-profits; local jurisdictions
Conduct research on economic sectors in the region to identify and understand high value industry sectors and "clusters" and work with other public agencies and private entities to provide policy and regulatory support for those sectors.	AMBAG; economic development agencies and non-profits; local jurisdictions
Compile and coordinate research and development that supports the green economy which can then be used to attract small, private businesses that would not otherwise be able to afford extensive research and development costs.	AMBAG; economic development agencies and non-profits
Provide a forum to coordinate the various economic development efforts by both the private and public sector throughout the region in order to maximize desirable economic development on a regional level.	AMBAG; economic development agencies and non-profits
Research ways to encourage vocational training facilities to educate the existing workforce for middle income jobs as well as leverage existing educational institutions to attract more middle income jobs.	AMBAG; local jurisdictions
Work with the Planning Directors Forum to further define and evaluate Opportunity Areas as areas for transit oriented development, as well as educate jurisdictions on the definition of transit priority project (TPP) areas per SB 375 to take advantage of CEQA streamlining benefits.	AMBAG; local jurisdictions
Stay abreast of new local initiatives, such as economic development plans, in order to more fully integrate transportation planning efforts with economic development issues and opportunities in urban and rural areas.	AMBAG
Support the reduction of impact fees and costs to developers for projects that will result in a net increase of jobs within enterprise zones or areas with a low jobs-housing ratio. Explore the economic impact of implementing an impact fee program that would incorporate multimodal projects and reductions for infill in parts of the region that do not currently have one.	AMBAG; RTPAs

Table 4-3: Implementation Strategies (continued)

Strategy	Responsible Party
Land Use & Environment	
Prioritize corridor investment projects along high quality transit corridors that serve multiple modes of travel in the development of the Metropolitan Transportation Plan and Regional Transportation Plans. Supportive investments include enhancements for high quality transit, technology deployment, bicycle and pedestrian improvements, and safer intersections.	AMBAG; RTPAs; local jurisdictions
Support mitigation efforts that reduce the impact transportation and land use projects have on open space and farmland by providing readily available data on natural resources and prime farmland to public agencies, exploring a mitigation bank program and participating in resource management planning activities.	AMBAG; RTPAs
Continue to work with local jurisdictions on long range land use planning by refining the land use typologies for the region and better defining opportunity areas.	AMBAG; local jurisdictions
Prioritize projects for funding that are consistent with the Sustainable Communities Strategy goals and/or that have complete streets elements per the adopted Sustainable Communities Strategy and Regional Complete Streets Guidelines in order to encourage use of active transportation options for short trips and improve quality of life.	RTPAs; local jurisdictions
Invest in safe bicycle and pedestrian routes that improve connectivity and access to common destinations, such as connections between residential areas and schools, employment centers, neighborhood shopping, and transit stops and stations, supporting efforts throughout the region to improve connectivity and realize public health benefits from these investments.	RTPAs; local jurisdictions
Legislative	
Work with State and Federal agencies to provide new and reformed transportation funding methods and sources to implement the Sustainable Communities Strategy that are stable, predictable, flexible, adjustable, and adequate in the whole to operate and expand the system.	AMBAG; RTPAs
Support the following legislative agenda: 1) Reinstate tax increment financing and redevelopment for areas identified as Sustainable Communities Investment Areas; 2) Collaborate with other mid to small size regions to ensure that reporting and performance measure requirements do not exceed reasonably available staffing and financial resources; and 3) work with legislatures to reduce the voter threshold from two-thirds to 55 percent for passing transportation related tax measures.	AMBAG; RTPAs

Table 4-3: Implementation Strategies (continued)

Strategy	Responsible Party
Technical Assistance/Education	
Continue to improve the Bicycle Model tool and LiveMaps as well as make available other data products that will help to assist local jurisdictions in the development of bicycle networks that have better connectivity and meet the origin and destination needs of the community.	AMBAG
Continue to provide forums for regional dialogue regarding local plans and projects so that localities can leverage each other's work for more coordinated regional planning efforts.	AMBAG; RTPAs
Develop educational and demonstration materials for General Plan updates that helps jurisdictions to easily and readily incorporate concepts and goals from the Sustainable Communities Strategy into their General Plan. Coordinate these materials with Climate Action Plan concepts and goals to ensure consistent and mutually supportive strategies are developed to reduce greenhouse gases.	AMBAG; local jurisdictions
Keep apprised of federal and state program funding cycles and specific funding opportunities, advise local agencies about them in a timely way, and help to zero in on projects that fit program requirements and are far enough along in delivery to maximize chances for success at bringing federal or state discretionary funds into the region.	AMBAG; RTPAs
Seek grant funding to develop a regional economic modeling tool that helps to identify and address the reasons for the jobs/housing imbalance in the region as well as simulate the effects of various kinds of economic development strategies.	AMBAG
Educate and provide resource material to local jurisdiction elected officials and the public about the economic benefits of sustainable development to both the public and private sector.	AMBAG; local jurisdictions; RTPAs
Provide grant technical support as well as letters of support to jurisdictions and public agencies looking to implement projects that are consistent with the Sustainable Communities Strategy.	AMBAG
Work with the Office of Planning and Research (OPR) to educate local jurisdictions about new CEQA options and analysis requirements including streamlining in SB 375, SB 743, and potential future legislation that includes CEQA incentives.	OPR; AMBAG; local jurisdictions
Increase public perception of the value, benefits, and use of transit, vanpool, and rideshare services, via activities such as the 511 website, image and product-specific advertising, promotion of new and restructured services, the guaranteed ride home program, outreach for special events, and education for those unfamiliar with alternative modes, including transit services and bicycle facilities, with both access and safety education.	RTPAs; transit agencies

Table 4-3: Implementation Strategies (continued)

Strategy	Responsible Party
Transportation	
Facilitate local jurisdiction adoption and implementation of a complete streets policy by recommending adoption of the region's guidelines. Encourage local jurisdictions to implement design principles consistent with the regional complete streets guidelines whenever completing local streets and road projects. Initiate a technical assistance program to help local agencies develop street designs or implement complete streets that are sensitive to their surroundings and context.	AMBAG; RTPAs; local jurisdictions
Encourage and support Caltrans in seeking traffic management and safety improvements along with highway rehabilitation projects from the State Highway Operations and Protection Program. Ensure that both urban and rural needs are targeted.	AMBAG; RTPAs; Caltrans
Take steps to improve safety and security at crosswalks, transit stops, and along main access routes to transit, including rural areas, with higher priority for low income, minority, and high crime areas.	RTPAs; local jurisdictions
Collaborate with jurisdictions and employers to provide local community shuttles or circulators that serve transit oriented development, high quality transit stops and neighborhood commercial centers providing an incentive for residents and employees to make trips on transit.	AMBAG; local jurisdictions; large regional employers; transit agencies
Continue to identify and promote projects that transition freight from trucks to rail, such as an intermodal station in the Salinas Valley.	AMBAG and TAMC in coordination with regional freight stakeholders
Continue to study the impacts of freight and goods movements on major arterials and corridors and support projects that increase freight mobility through and within the region.	AMBAG
Continue to plan for and provide infrastructure for electric vehicles using the region's PEV Readiness Plan, while also planning for and considering evolving transport methods from driverless cars to informal ridesharing networks.	AMBAG
Continue to seek funding to support the regional vanpool program and market vanpooling throughout the region.	AMBAG
Continue the region's commitment to transportation demand management programs as a strategy for safety education and promotion of alternative travel modes for all types of trips. Market transportation demand management strategies towards tourists so that once people arrive to the Monterey Bay Area they have resources to get out of their cars.	RTPAs
Support work-based programs that encourage emission reduction strategies and incentivize active transportation commuting or ride-share modes.	AMBAG; RTPAs
Work with Caltrans to incorporate multimodal design into highway projects such that transit can be accommodated on the highway and pedestrian and bicyclists connectivity is enhanced for access over the highway.	RTPAs; Caltrans; transit agencies; local jurisdictions
Increase rural and low income minority communities' transportation mobility by supporting greater coordination of rural transportation services, providing solutions to bridge the distance between trip origins or destinations and transit, as well as developing cost-effective programs that attract more riders, including expanded rural vanpools and increased local transit service.	AMBAG; RTPAs; transit agencies

Table 4-3: Implementation Strategies (continued)

Strategy	Responsible Party
Transportation	
Support projects that improve mobility and accessibility for seniors and people with disabilities.	AMBAG; RTPAs; transit agencies
Encourage the use of traffic operational strategies and intelligent transportation systems to improve traffic flow that will provide lower-cost alternatives to road expansion.	AMBAG; RTPAs; local jurisdictions
Work with local cities, as well as regional, state and national organizations to find alternative funding sources for improving access to open space including national parks in the region.	AMBAG; RTPAs; local jurisdictions
Work with the Regional Storm Water Management Program staff to learn more about new post-construction storm water management requirements and incorporate best practices for storm water management into project design and future regional planning efforts.	AMBAG; Regional Storm Water Management Program; RTPAs; local jurisdictions
Work with the Monterey Airport staff and partner agencies to secure funding to update the Airports Economic Impact Study.	AMBAG; RTPAs; local airports
Provide training opportunities for local jurisdictions on transportation system management strategies and collaborate with local jurisdictions to update the intelligent transportation systems architecture.	FHWA; AMBAG

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5 Performance Measures



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Introduction

The investments identified in the 2035 MTP/SCS are expected to result in significant benefits to the region, not only with respect to transportation and mobility, but also economic activity, air quality, safety, and social equity. This chapter describes the benefits and outcomes projected to result from the implementation of the 2035 MTP/SCS with respect to the adopted regional performance measures. This chapter also describes how the 2035 MTP/SCS addresses the statutory requirements regarding SB 375 and social equity.

Performance Outcomes

This section summarizes how well the 2035 MTP/SCS performs. Table 5-1 lists the outcomes of performance measures forecasted using both the AMBAG Regional Travel Demand Model (RTDM) and Geographic Information Systems (GIS). While this chapter includes summaries of the performance improvements expected from the implementation of the 2035 MTP/SCS, more detail is provided in Appendix G.

In the discussion of performance and outcomes, three scenarios are referenced: Existing, No Build, and Plan. The 2010 Existing represents existing conditions and includes only existing transit service and the existing transportation network in 2010. The 2035 No Build assumes current land use trends and represents a future in which only committed programs and projects are implemented. Committed programs and projects are those which are programmed in the 2012 Metropolitan Transportation Improvement Program (MTIP) that have received environmental clearance. The Plan refers to future conditions in which the 2035 MTP/SCS land use patterns and transportation investments are realized. The specific projects associated with the Plan are identified in Appendix C.

Access and Mobility

Accessibility is used to capture how well the transportation system performs in providing people access to various destinations. Destinations can include anything from jobs, education, medical care, recreation, shopping, or another activity that is essential to one's daily needs or helps to improve quality of life. In the 2035 MTP/SCS, accessibility performance measures consider the distribution of trips by mode and travel time.

Work Trips Within 30 Minutes

Compared to existing, the percentage of transit work trips that can be made in 30 minutes improves in the 2035 MTP/SCS. Drive alone and carpool work trips maintain a high level of performance with more than 80 percent of the trips capable of being made within 30 minutes.

Table 5-1: Performance Measures

Regional Performance Measures	2010 Existing	2035 No Build	2035 MTP/SCS
Access and Mobility			
Work Trips Within 30 Minutes (percent)			
Drive Alone	84.3%	84.0%	84.2%
Carpool	84.3%	84.0%	84.2%
Transit	15.4%	16.9%	17.1%
Commute Travel Time (minutes)	15.7	15.7	15.7
Economic Vitality			
Jobs Near High Quality Transit (percent)	17.5%	27.2%	57.3%
Daily Truck Delay (hours)	2,802	11,471	10,667
Environment			
GHG Reductions (Percent reduction from 2005 baseline)*	N/A	0.6%	-5.9%
Open Space Consumed (acres)	N/A	2,944	2,556
Farmland Converted (acres)	N/A	14,611	14,316
Healthy Communities			
Alternative Transportation Trips (percent)	17.3%	18.1%	17.7%
Air Pollution - all vehicles (tons/day)	31.3	9.5	9.4
Peak Period Congested Vehicle Miles of Travel (miles)	128,463	749,430	618,975
Social Equity			
Distribution of MTP/SCS Investments (percent)			
Low income population	N/A	N/A	90.3%
Non low income population	N/A	N/A	9.7%
Minority population	N/A	N/A	79.1%
Non minority population	N/A	N/A	20.9%
Poverty population	N/A	N/A	62.2%
Non poverty population	N/A	N/A	37.8%
Access to Transit within 1/2 mile (percent)			
Low income population	14.5%	16.4%	48.2%
Non low income population	10.3%	12.8%	38.4%
Minority population	12.8%	14.9%	47.1%
Non minority population	14.5%	17.0%	44.3%
Poverty population	16.0%	13.6%	50.5%
Non poverty population	11.9%	14.3%	42.6%
System Preservation and Safety			
Maintain the Transportation System (percent)	N/A	N/A	50%
Fatalities and Injuries per Capita	0.4%	0.4%	0.4%

*Greenhouse gas reductions in 2020 are -3.5 percent from 2005 levels.

Source: AMBAG Regional Travel Demand Model and Geographic Information Systems. For more information on methodology see Appendix F.

Commute Travel Time

Compared to Existing and No Build, average commute travel time will remain the same with the improvements included in the 2035 MTP/SCS despite an additional 150,000 people living in the region.

Economic Vitality

In order to measure the economic vitality of the region, performance measures related to proximity of jobs from transit as well as truck traffic were examined. By providing better access to jobs the region's economy can continue to grow. Additionally a measure looking at truck traffic was considered imperative given the importance of goods movement to the regional economy.

Jobs Near High Quality Transit

In 2035, 57 percent of the region's jobs are within one-half mile of a transit stop, compared to only 17.5 percent in the base year.

Daily Truck Delay

This measure estimates the daily truck hours of delay. The 2035 MTP/SCS includes investments in a regional freight corridor and other improvements to facilitate goods movement. The Plan is estimated to reduce truck delay by approximately seven percent over No Build. However, the truck delay under the Plan will still be above existing levels.

Environment

There are many aspects of the 2035 MTP/SCS that are geared towards improving the environment. However, the performance measures categorized as environmental here are those that have a major effect on the physical surroundings.

Greenhouse Gas Reductions

The targets agreed upon by AMBAG and the California Air Resources Board (CARB) for greenhouse gas reductions are a zero percent per capita increase from 2005 levels by 2020 and a five percent per capita reduction from 2005 levels by 2035. The Plan exceeds the target in both years

achieving over three percent reduction in 2020 and a six percent reduction in 2035.

Open Space Conservation

This performance measure shows the total acreage of open space consumed by development. In that regard it considers impacts to sensitive habitat only as it pertains to destruction of that habitat for development. The performance measures do not include a separate analysis for sensitive habitat, however a detailed discussion of the impacts to sensitive habitat can be found in the Environmental Impact Report. The Plan reduces the amount of open space that would be consumed over a No Build scenario by 13 percent.

Farmland Preservation

This performance measure shows the total acreage of farmland consumed by development. The Plan shows a decrease of two percent of farmland consumed over the No Build scenario. All of the farmland being consumed in the Plan is within existing spheres of influence or is within Community Plan Areas as designated by the General Plans in the region.

Healthy Communities

More and more government organizations are adopting a health in all policies approach to policy and planning. The transportation system and land use patterns in this region have the potential to substantially impact the health and wellbeing of its residents. Specifically, alternative transportation trips have the potential to: increase a person's daily





physical activity therefore having a lasting positive effect on health; improve air quality which directly effects people’s lungs and physical wellbeing; and reduce congestion which can decrease the amount of exposure to poor air and noise pollution.

Alternative Transportation Trips

This performance measure evaluates the percent of trips made using transit, shared ride, bicycle or pedestrian modes. The Plan shows a slight decrease in the total percent of trips taken using an alternative mode. However, it is difficult to capture the full benefits of active transportation investments in current travel demand models as available data on these types of modes is more limited than data on vehicle trips. The benefit of investing in alternative transportation modes is likely far greater than models are able to capture.

Air Pollution

The air quality performance measure evaluates smog forming pollutants in daily short tons. The Plan improves the air quality throughout the region over the 2010 existing measures of smog forming pollutants.

Congested Vehicle Miles of Travel

The congested vehicle miles traveled in the region is improved in the Plan over the No Build scenario, however it still increases over 2010 existing levels. As population increases so will congested VMT increase. The Plan does improve the projected congested VMT over a scenario in which the region does nothing to address transportation needs.

Social Equity

In this document social equity refers to the equitable distribution of transportation impacts (benefits, disadvantages and costs) regardless of income status or race and ethnicity. Social equity performance measures compare low income, poverty, and minority populations against non-low income and minority populations to ensure that there is an equitable distribution of benefits and not a disproportionate share of burdens. The low income, poverty, and minority areas are shown in Figure 5-1. For more information on identification



of these populations refer to Appendix G.

- *Low Income Populations:* any Census tract in which 65 percent or more of families are low income, and/or 20 percent or more of the families are living at or below the poverty income threshold.
- *Poverty Populations:* any Census tract in which 20 percent or more of families are living at or below the federal poverty income threshold.
- *Minority Populations:* any Census tract in which 65 percent or more of the population is non-White.

Distribution of Transportation Investments

The 2035 MTP/SCS includes regional investments in the transportation system across the three counties. The distribution of transportation investments are greater in low income and minority populations compared to other populations.

The analysis for low income populations shows that the 2035 MTP/SCS will result in higher increases in transportation investments for low income and poverty populations: 90 percent in low income areas compared to 10 percent in non-low income areas and 62 percent in poverty areas compared to 38 percent in non-poverty areas.

The analysis also shows that the 2035 MTP/SCS will result in higher investments for minority populations as compared to non-minority populations: 79 percent in minority areas compared to 21 percent in non-minority areas.

Equitable Transit Access

This performance measure evaluates the percent of low income, poverty, and minority populations that are located within one-half mile of a high quality transit stop. In 2010, only a small percentage of the population is located near a high quality transit stop: 14 percent low income and 13 percent minority. With the 2035 MTP/SCS, access to transit would increase to 48 percent for low income and 47 percent for minority populations. Figure 5-2 highlights the transit accessibility of the region.

Vehicle Miles Traveled

The number of vehicle miles traveled (VMT) is an indicator of the travel levels on the roadway system by motor vehicles. VMT is estimated for a given time period. This estimate is based upon traffic volume counts and roadway length and is used to give planners an understanding of the level of usage of the roadway network. VMT is also used to estimate greenhouse gas emissions. However, when examining VMT to understand potential GHGs one must take into account various speeds at which cars travel. A vehicle traveling at slow or very high speeds on a highway emits more greenhouse gas emissions than one traveling at 45 to 55 miles per hour. For this reason planners often look to congested VMT rather than total VMT to gain a better understanding of impact on emissions.

As the region's population continues to grow, VMT will also continue to grow. However, the growth in population is not the only factor fueling the rise in travel. Other factors include economic growth, relatively affordable auto travel costs, tourism, low levels of public transit, and other related factors. As the amount of auto travel increases, the time wasted on congested roadways, the energy used by vehicles and total costs of auto travel increase accordingly. The 2035 MTP/SCS aims to reduce this congested VMT, by providing a host of transportation options such that people do not have to drive everywhere but have alternative options available to them, particularly for shorter distance trips.

System Preservation and Safety

One of the ongoing struggles with the region's transportation system is finding the funding needed for preventative maintenance. The cost to maintain the existing transportation system is accelerating as the cost to fix roadways increases exponentially the longer it is deferred. The cost for roadway rehabilitation is six to ten times more expensive than ongoing preventative maintenance. Maintenance is required for the system not only for quality of life for existing users, but also for the safety of those users.

Maintain the Transportation System

The 2035 MTP/SCS dedicates 50 percent of the total funding available for maintenance and rehabilitation projects.

Fatalities and Injuries

This performance measure evaluates the safety of the transportation system by using data on injuries and fatalities to calculate a per capita rate of injury or fatality. Fatalities and injuries are relatively unchanged between 2010 and 2035 staying at a rate of four in 1,000 of injury or fatality per capita. This is a particularly difficult measure to project because it assumes that fatalities and injuries are held constant for every vehicle mile traveled. However, by establishing it as a performance measure in the 2035 MTP/SCS this opens the door for AMBAG to monitor past injuries and fatalities and therefore monitor the effects of the Plan as it is implemented over the course of time.

Environmental Justice and Title VI

The Monterey Bay Area is a diverse area with both low and high cost areas. However, in California even "low cost" areas are expensive compared to national averages. According to the H+T index developed by Center for Neighborhood Technology over half of the households in this region spend more than 45 percent of their income on transportation and housing costs combined. If just housing costs are considered without transportation costs, then half of the residents in this region spend

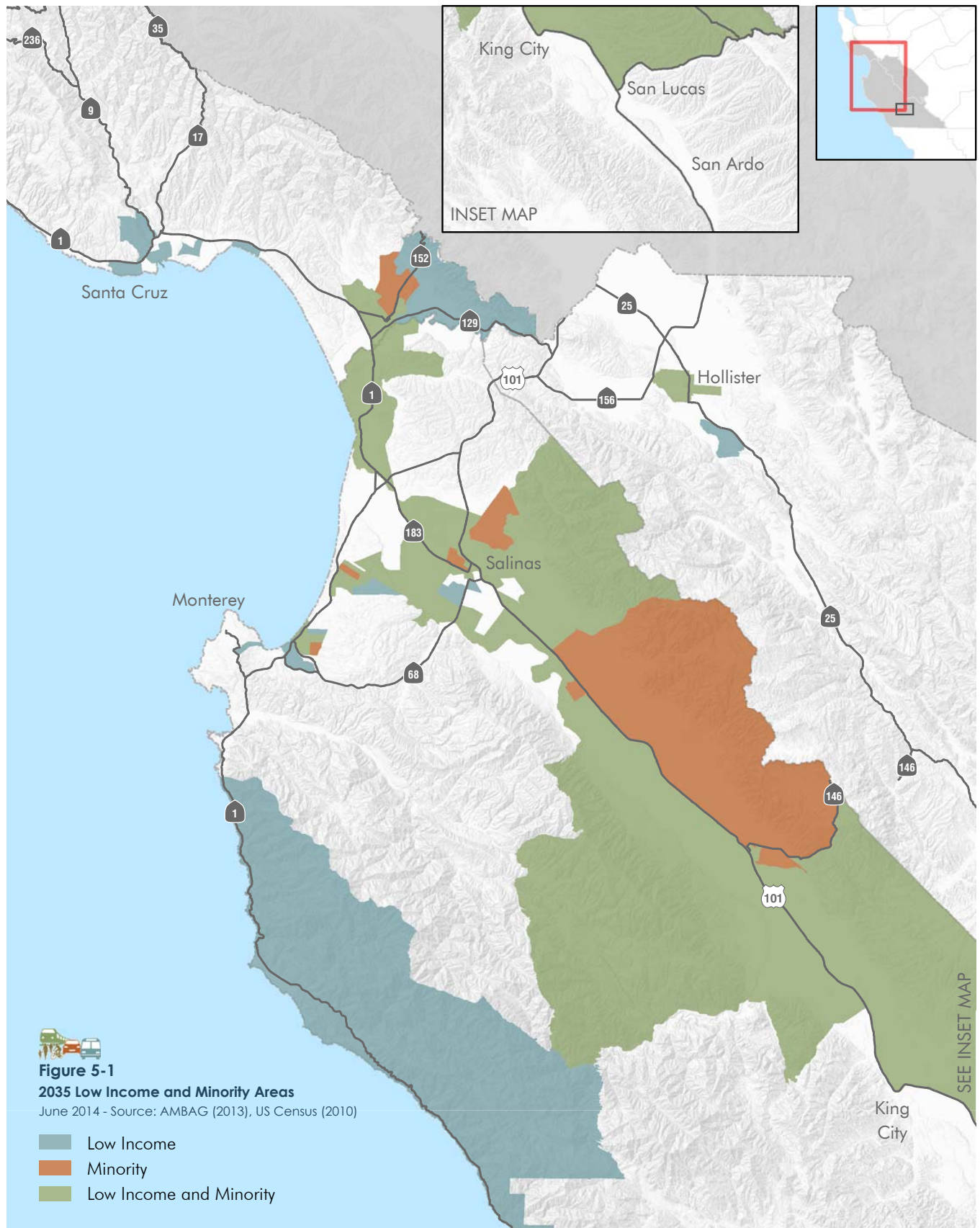
over 30 percent of their income on housing costs. The high cost of housing as well as daily goods and services means that many households which are above the federal poverty standards will still struggle to live in this region. For this reason, this Plan distinguished low income from poverty standards when measuring the performance of the proposed transportation improvements. In addition, the Plan looks at the effect of these investments on the minority population, which increasingly is the majority of the people living in the region.

Environmental Justice Background

The concept of environmental justice is about equal and fair access to a healthy environment, with the goal of protecting underrepresented and low income communities from incurring disproportionate negative environmental impacts. Consideration of environmental justice in the transportation planning process stems from Title VI of the Civil Rights Act of 1964 (Title VI). Title VI establishes the need for transportation agencies to disclose to the public the benefits and burdens of proposed projects on minority populations. The understanding of civil rights has expanded to include low income communities, as further described below. Title VI states that "No person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance." Additionally, Title VI not only bars intentional discrimination, but also unjustified disparate impact discrimination. Disparate impacts result from policies and practices that are neutral on their face (i.e., there is no evidence of intentional discrimination), but have the effect of discrimination on protected groups.

A 1994 Presidential Order (Executive Order 12898) directed every federal agency to make Environmental Justice part of its mission by identifying and addressing the effects of all programs, policies, and activities on underrepresented groups and low income populations. Reinforcing Title VI, this Presidential

Figure 5-1: Low Income Minority Areas



Order ensures that every federally funded project nationwide considers the human environment when undertaking the planning and decision making process. The Presidential memorandum accompanying E.O. 12898 identified Title VI as one of several federal laws that should be applied “to prevent minority communities and low income communities from being subject to disproportionately high and adverse environmental effects.” Given the overlap in Title VI and environmental justice policies, the term “environmental justice” is used as an inclusive term to mean minority and low income populations. In addition to federal requirements, AMBAG must comply with California Government Code Section 11135, which states that “no person in the State of California shall, on the basis of race, national origin, ethnic group identification, religion, age, sex, sexual orientation, color, or disability, be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under, any program or activity that is conducted, operated, or administered by the state or by any state agency, is funded directly by the state, or receives any financial assistance from the state.”

AMBAG’s Title VI/ Environmental Justice Policy and Program

As a government agency that receives federal funding, AMBAG is required to conduct an environmental justice analysis for its MTP. AMBAG’s environmental justice program includes two main elements: technical analysis and public outreach. Specifically, it is AMBAG’s role to ensure that when transportation decisions are made, low income and minority communities have ample opportunity to participate in the decision making process and that they receive an equitable distribution of benefits and not a disproportionate share of burdens. AMBAG adheres to all directives on Environmental Justice.

Under federal policy, all federal agencies must make environmental justice part of their mission and adhere to three fundamental Title VI/environmental justice principles:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low income populations.

AMBAG complies with the framework provided to integrate the principles of environmental justice into the decision making processes.

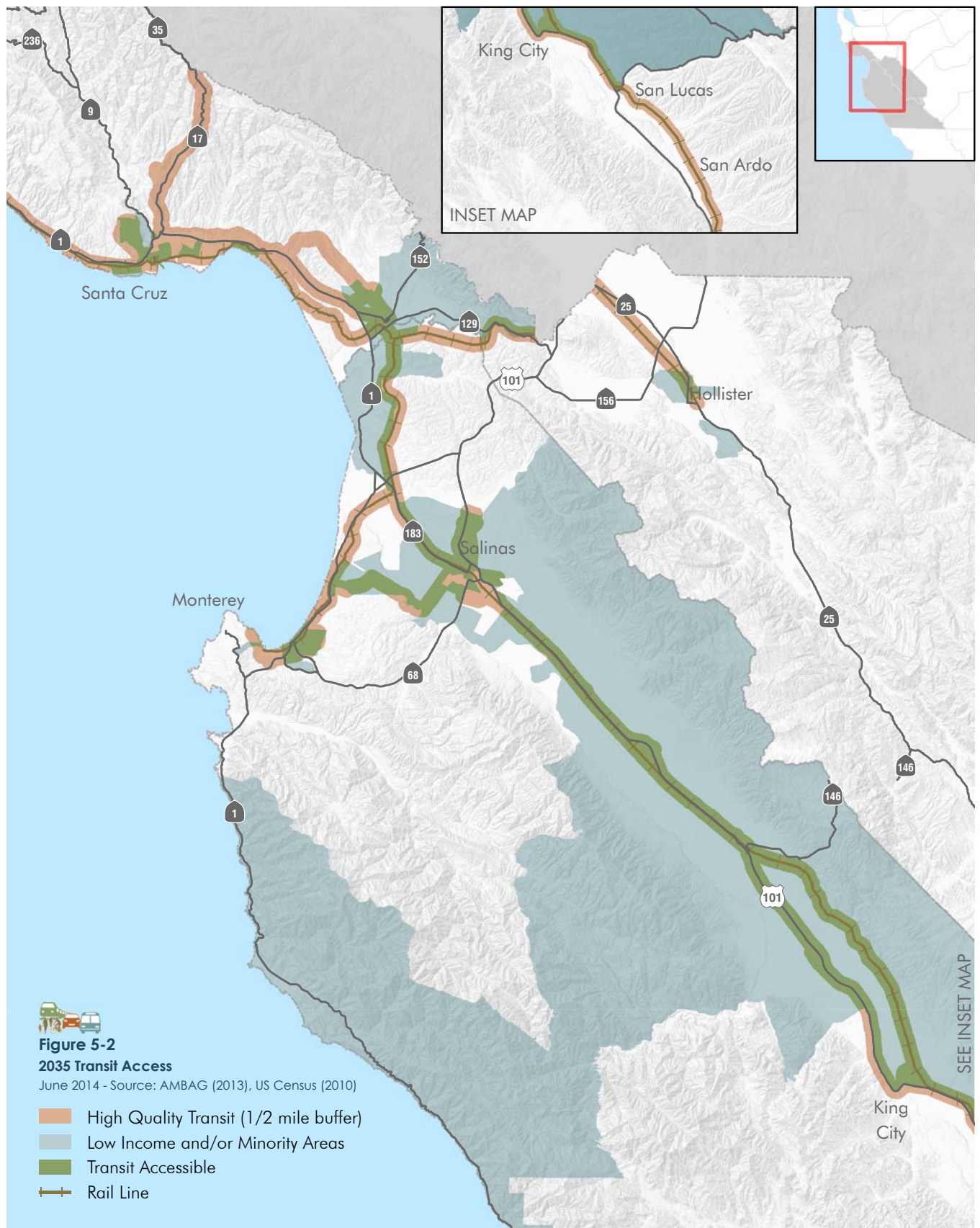
Technical Analysis

As with the other performance measures presented in this chapter, the comparison of the Plan versus Existing and the No Build is the primary focus of the environmental justice analysis for the 2035 MTP/SCS. The Plan represents the selected strategy to guide the region’s transportation planning over the next two decades, while the No Build represents “business as usual” and assumes current land use trends and the completion of projects programmed in the 2012 MTIP that have received environmental clearance. The data for the analysis is based on the AMBAG RTDM and GIS analysis results. Based on the analysis conducted, the Plan increases transportation investment in low income, poverty, and minority populations as well as improves access to transit and therefore destination opportunities. Additional information on the performance measures is included in Appendix G.

AMBAG’s Title VI and Environmental Justice Outreach

A key component of the 2035 MTP/SCS development process is seeking public participation. Public input from partner agencies and key stakeholders helped AMBAG prioritize and address needs in the region. As part of the outreach effort, AMBAG compiled a list of key stakeholders to be contacted regarding 2035 MTP/SCS programs and policies. This list is comprised of a large variety of individuals and organizations ranging from

Figure 5-2: Transit Access



community groups, interest groups, environmental groups, etc. AMBAG maintains this list regularly and allows interested persons to sign up online for the mailing list. The outreach conducted for the SCS to low income and minority groups resulted in the inclusion of increased transit funding in currently underserved areas, the prioritization of vanpooling as a transportation demand management strategy and the emphasis on economic development within the SCS itself.

6

Public Participation



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Introduction

AMBAG values public participation in the development of the 2035 MTP/SCS. Public involvement is essential to ensure that stakeholders gain a clear understanding of AMBAG, its role as a metropolitan planning organization (MPO), critical elements of the 2035 MTP/SCS, and its development process. Furthermore, public involvement helps AMBAG policymakers and staff better understand the needs and concerns of stakeholders, leading to more meaningful planning.

A critical component in preparing the 2035 MTP/SCS was to provide guidance in the structuring of regional transportation planning processes to ensure that, to the greatest extent possible, interagency consultation and public participation were an integral and continuing part of the regional transportation decision making process. The participation policies and procedures were structured to enable all participants the ability to express their values and interests in the shaping and implementation of regional policies and decisions regarding the transportation system.

Development of the 2035 MTP/SCS has been a multi-year effort that began in 2012. A comprehensive program of public involvement activities was a key part of the process. Extensive outreach with local government officials was conducted, as well as numerous community workshops and meetings, in addition to telephone and online surveys. A detailed description of the outreach activities is included in Appendix D.

Public Participation Plan

In compliance with federal and state requirements and to guide effective public involvement, AMBAG utilizes its Public Participation Plan. The Public Participation Plan provides direction for public participation activities, outlining the processes and strategies AMBAG uses to reach out to a broad range of stakeholders to gain input. AMBAG's Public Participation Plan was updated to incorporate requirements of SB 375. Detailed documentation of the public outreach conducted for the 2035 MTP/SCS is included in Appendix D.

Engaging the Community

AMBAG engaged the community throughout the development of the 2035 MTP/SCS. These activities include:

- Eighteen community workshops
- Seven public hearings
- A project website (www.MovingForwardMB.org)



- Design and implementation of a geographic information system (GIS) based mapping system called AMBAG LiveMaps
- Three interactive online surveys in English and Spanish
- A telephone survey
- A five-minute video
- Preparation of handout materials, flyers, information sheets, frequently asked questions (FAQs), etc.
- Nine meetings with the Regional Advisory Committee (RAC), a group of key stakeholders made up of environmentalists, business leaders, community activists, and local planning commissioners.

Each of these activities is described in further detail in subsequent sections of this chapter.

Workshops

Three series of six workshops each were held throughout the tri-county region at key milestones that corresponded with the online surveys previously discussed. The workshops were designed in an open house format with a variety of stations to provide one-on-one discussion and to create a more comfortable and meaningful environment for participants.

Materials were provided in both English and Spanish and translation services were available at most of the workshops. Each workshop had a series of interactive stations where participants were asked to engage with planners by drawing on maps, asking questions and stating preferences.

The first workshop series was held in May 2013 and designed to inform participants of regional issues, explain the purpose of this project, and to solicit input on their preferences and priorities, which would help shape the initial set of scenarios. The second workshop series was held in July 2013 and was set up to explain the purpose of the 2035 MTP/SCS and to solicit input on the initial scenarios, which would help create the hybrid

scenarios. The third workshop series was held in March to receive input on the Draft 2035 MTP/SCS. At each of the workshops in March AMBAG also conducted public hearings which provided the opportunity for formal comment. A seventh public hearing was held at the March AMBAG Board of Directors meeting. Input received during these workshops and public hearings was then used to make changes to the Final Plan.

Surveys

Public workshops are a great tool to solicit comments from the community; however, not everyone is able or willing to participate. To help increase awareness and to reach more people than conventional workshops, a series of surveys were created at critical points throughout the project.

Online Surveys

The tool utilized for online surveys was MetroQuest, one of the leading digital engagement tools for scenario building, transportation and land use projects. The interface is interactive, intuitive, and can be translated into multiple languages. All surveys were provided in both English and Spanish and were made available through the project website. The general format consisted of three to five panels which include multiple choice and open ended questions, rankings, map identification, and demographic questions.

The online surveys were active during and after the community workshops to maximize number of participants. Three online surveys have been conducted at key milestones of the planning process to (1) establish preferences and priorities, (2) provide feedback on initial scenarios, and (3) provide feedback on the draft 2035 MTP/SCS.

Telephone Survey

A telephone survey was conducted in spring 2013 to assess the community's current trends and priorities for transportation infrastructure needs and investment. Questions were created with input from all three counties. Specifically, the survey focused on:

Public Participation Plan

Providing public access to and participation in the planning processes of the Monterey Bay region is a responsibility shared between Caltrans, AMBAG, the Council of San Benito County Governments, the Santa Cruz County Regional Transportation Commission, the Transportation Agency for Monterey County, Monterey-Salinas Transit, San Benito County Local Transportation Authority, and Santa Cruz Metropolitan Transit District. Each partner agency solicits public input from its planning, policy, and programming processes. Various methods are used to engage stakeholders, and provide affected agencies and interested parties with timely information and opportunities to participate in the transportation planning process.

Each federally funded transportation program or project conducted by a partner agency must have a specified public participation process that defines the avenues for reasonable involvement in the metropolitan transportation planning process. AMBAG's process is outlined in the 2011 Public Participation Plan.

The Monterey Bay Area Public Participation Plan was originally adopted in 2008. The passage of Senate Bill 375 in 2008 resulted in changes in Government Code §65080, which required an update to the Monterey Bay Area Public Participation Plan. The 2011 update is responsive to the Senate Bill 375 requirement.

- Level of concern about community issues
- Use of the local transportation system
- Transportation infrastructure needs
- Proposed projects for transportation investment
- Themes or messages that may assist public information efforts

The survey reached 450 residents each from Monterey and Santa Cruz Counties and over 300 residents from San Benito County.

Regional Advisory Committee

The Regional Advisory Committee consists of environmentalists, business leaders, community activists, and local planning commissioners. Recommendation for Regional Advisory Committee membership was made by a subcommittee of the AMBAG Board of Directors and was approved by the full AMBAG Board of Directors. The Regional Advisory Committee meets quarterly or as needed to provide input on land use and transportation issues. The Regional Advisory Committee met nine times throughout the planning process and at key milestones to identify priorities, provide guidance on initial scenario development, review draft workshop materials, and to receive project updates including feedback from the community workshops and online surveys.

Digital Media

In addition to print media AMBAG provided information in a few different digital formats. Data that was collected for the purposes of this project was compiled in the new AMBAG *LiveMaps* system. Surveys were distributed online using an interactive format, facebook was utilized to advertise meetings and a project website and video were distributed.

AMBAG LiveMaps

AMBAG has collected GIS data from the various jurisdictions over the years and has stored the data on an internal server. As part of this project and to

better foster regional coordination, the data was organized into a central database and hosted on a public website and branded as *AMBAG LiveMaps*.

This interactive tool is available to anyone with an internet connection. It is the intent that the data will be regularly updated and new features will be added to enhance the user experience and address comments from jurisdiction staff and other users.

The *AMBAG LiveMaps* tool is organized by Land Use and Planning (city limits, airports, land use, etc.), Natural Features (fault lines, fire hazards, waterbodies, etc.), and Transportation (bus routes, bikeways, trails, etc.). These categories will be expanded and new data added as it is made available and organized.

Project Video and Website

The project website (www.MovingForwardMB.org) is the central portal for information about the project and upcoming events. The website address was provided on all outreach materials and has been updated regularly to maintain current content.

From the homepage, visitors of the website could utilize “Quick Links” to the project video, online survey, LiveMaps, upcoming events, recent news, email sign-up, and the AMBAG Facebook page.

Tabs at the top linked to a variety of pages providing useful information on the history of the project, a glossary of terms and acronyms, frequently asked questions (FAQs), documents and maps, and pages provided within the Quick Links.

In addition to the website, a project video was created in both English and Spanish to introduce the issues, the process, and the outcome for the project. The video is prominently located on the website and is available on YouTube.

Engaging Local Jurisdictions

A variety of committees and boards were consulted throughout the planning process and at key milestones to solicit feedback, provide project updates, and relay community input from the workshops and surveys. These committees and



boards are made up of elected officials, staff from local jurisdictions and agencies, local leaders and organizers, and members of the general public.

AMBAG Board of Directors

The AMBAG Board of Directors consists of local elected officials that have been appointed by their respective city council or board of supervisors. Each member city has one representative on the AMBAG Board and each member county has two.

The AMBAG Board meets monthly and sets policy. Day-to-day oversight is provided by the Executive Director, who is appointed by and serves at the pleasure of the Board of Directors.

The AMBAG Board met once a month throughout the planning process to receive project updates, provide policy direction, determine hybrid and preferred scenarios, and ultimately to adopt the 2035 MTP/SCS.

Planning Directors Forum

The Planning Directors Forum consists of planning directors and staff from the 18 cities, three counties, three regional transportation planning agencies, and AMBAG. The Planning Directors Forum meets regularly to address regional land use and transportation planning issues. The Planning Directors Forum met ten times throughout the planning process and at key milestones to identify priorities, help establish initial scenario development, review draft workshop materials, and to receive project updates including feedback from the community workshops and online surveys.

Technical Advisory Committees

The Technical Advisory Committees for each county are made up of staff from local jurisdictions and agencies, including local transit service providers and are managed by staff from the Regional Transportation Planning Agencies (RTPAs). The Technical Advisory Committees review and provide technical guidance and advice on transportation projects and programs within each county, and

makes recommendations to the RTPA Boards of Directors. AMBAG staff met with the Technical Advisory Committees frequently, particularly at key milestones throughout the planning process to confirm transportation priorities, projects, and funding sources.

One-on-One Meetings

In addition to coordinating workshops and large meetings to discuss and inform the planning process AMBAG held one-on-one meetings with senior staff from local jurisdictions. Many of these meetings were to discuss the Regional Growth Forecast. However, these meetings were critical to engaging local planners in the overall 2035 MTP/SCS development process as well as for incorporating ongoing local infill development strategies and other land use plans into the regional planning process.

Coordinating with Partner Agencies

The Regional Transportation Planning Agencies - the Transportation Agency for Monterey County, the Santa Cruz County Regional Transportation Commission and the San Benito County Council of Governments - are important partners in the planning process for the 2035 MTP/SCS. Each RTPA develops a separate Regional Transportation Plan for each county in the region that has county specific details for transportation projects. AMBAG works with the RTPAs to develop project lists, financial assumptions and revenue constrained scenarios during the planning process. AMBAG staff met with the three RTPAs' staff twice a month as part of a working group in order to coordinate development of each of the Regional Transportation Plans with the 2035 MTP/SCS.

7

Glossary



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Glossary

AASHTO

American Association of State Highway and Transportation Officials – A nonprofit, non-partisan association representing highway and transportation departments in the 50 states, the District of Columbia, and Puerto Rico.

AB 32

Assembly Bill 32: Signed into law on September 26, 2006, it requires that the state's global warming emissions be reduced to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on global warming emissions that will be phased in starting in 2012. In order to effectively implement the cap, AB 32 directs the California Air Resources Board (CARB) to develop appropriate regulations and establish a mandatory reporting system to track and monitor global warming emissions levels.

ADA

Americans with Disabilities Act: The federal civil rights legislation for disabled people that was passed in 1990; it requires public transportation systems to be more fully accessible; includes the provision of paratransit service.

Active Transportation

Active Transportation includes any method of travel that is human-powered, but most commonly refers to walking and bicycling.

ADT

Average Daily Traffic: The average number of vehicles that travel on a given roadway in a 24-hour period on a weekday.

Air Cargo

Revenue producing items in domestic or international air commerce, composed of freight, express, and mail, but excluding passenger baggage.

Air Carrier

An aviation operator that provides regular round-trips per week between two or more points, and publishes flight schedules that specify the times, days of the week, and places between which such flights are performed; or that transports mail by air pursuant to a contract with the U.S. Postal Service.

Alternative Transportation Fuels

Low polluting fuels that are used to propel a vehicle, in place of petroleum-based gasoline or diesel fuels. Examples include biodiesel, electricity, ethanol, propane, compressed natural gas, and liquid natural gas.

AMBAG

Association of Monterey Bay Area Governments: AMBAG is responsible for long-range transportation planning and programming under federal and state law.

Amtrak

The National Railroad Passenger Corporation, or Amtrak, is the nation's intercity passenger rail provider. Amtrak operates trains in partnership with 15 states and four commuter rail agencies.

Annual Service Miles

The number of miles that all transit vehicles travel each year in scheduled transit service operations, or when carrying passengers in door-to-door transit service.

Apportionment

A federal budgetary term that refers to a statutorily prescribed division of assigned funds. It is based on formulas prescribed by law.

APS

Alternative Planning Strategy: Senate Bill 375 (SB 375) provides that if the sustainable communities strategy falls short of meeting the regional greenhouse gas reduction targets from passenger vehicles, the region must prepare an "alternative planning strategy" that, if implemented, would meet the targets.

ArcInfo

A geographic information system (GIS) that can be used to maintain, manipulate, and display transportation, land use, and demographic data.

Arterial

Streets with traffic lights that serve primarily to carry traffic through an area as quickly and efficiently as possible.

Arterial Management System

A hardware and software system that enables local agencies to coordinate the timing of traffic signals across jurisdictional boundaries; optimize the flow of traffic on regionally significant arterials; manage traffic caused by special events and major accidents; and coordinate arterial signals with freeway ramps, transit service, and rail grade-crossings.

ATIS

Advanced Traveler Information Systems: Technology used to provide travelers with information, both pre-trip and in-vehicle, so they can better utilize the transportation system.

ATMS

Advanced Transportation Management Systems: Technology used to improve the operations of the transportation network.

Auxiliary Lane

An additional freeway lane between adjacent interchanges that improves the weaving conflicts between exiting and entering vehicles.

AVL

Automated Vehicle Location: A transportation device that uses the coordinates from earth-orbit satellites to determine the precise location of a vehicle on the earth's surface. AVL is used to manage taxi, bus, and commercial vehicle fleet operations.

AVO

Average Vehicle Occupancy: Calculated by dividing the total number of travelers by the total number of vehicles.

Base Year

The year 2010, used in the MTP performance analysis as a reference point for current conditions.

Baseline

Future scenario which includes only those projects that are existing, undergoing right-of-way acquisition or construction, come from the first year of the previous MTP or MTIP, or have completed the NEPA process. The Baseline is based upon the adopted 2012 MTIP. The Baseline functions as the “No Project” alternative used in the MTP/SCS Program EIR.

Bikeway Classifications

As defined by the Manual on Uniform Traffic Control Devices:

- Class I Bike Path: A paved shared-use path within an exclusive right of way
- Class II Bike Lane: Signed and striped lanes within a street right of way
- Class III Bike Route: Preferred routes on existing streets identified by signs
- Shared Lane Marking or “Sharrow:” Provides positional guidance to bicyclists on roadways that are too narrow to be striped with bicycle lanes and to alert motorists of the location a cyclist may occupy in the roadway

BRT

Bus Rapid Transit: Corridor-level services providing fast and frequent transit services that are designed to take advantage of priority treatments in order to serve longer distance regional trip-making.

BTA

Bicycle Transportation Account: Provides state funds for city and county projects that improve safety and convenience for bicycle commuters.

CAA

Clean Air Act: Federal legislation that sets national air quality standards and requires each state with areas that have not met federal air quality standards to prepare a State Implementation Plan, or SIP. The 1990 amendments to the CAA, often referred to as the CAAA, established new air quality requirements for the development of metropolitan transportation plans and programs. The California Clean Air Act (CCAA) sets more stringent standards for state air quality.

CAAA

Clean Air Act Amendments of 1990: Federal legislation that established criteria for attaining and maintaining federal air quality standards for allowable concentrations and exposure limits for various air pollutants. The legislation also provides emissions standards for specific vehicles and fuels.

CAFR

Comprehensive Annual Financial Report: Official annual financial report that encompasses all funds and financial components associated with any given organization.

Caltrans

California Department of Transportation: The state agency responsible for the design, construction, operation, and maintenance of the state highway system. The State system includes interstate freeways and state highways.

CARB

California Air Resources Board: The state agency responsible for adopting state air quality standards, establishing emission standards for new cars sold in the state, overseeing activities of regional and local air pollution control agencies, and setting regional targets for reducing greenhouse gas emissions from passenger vehicles.

Carpool

An arrangement in which two or more people share the use of a privately-owned automobile to travel together to and from pre-arranged destinations — typically between home and work or home and school.

Carsharing

Organized short-term auto rental, often located in downtown areas near public transit stops as well as near residential communities and employment centers. Carsharing organizations operate fleets of rental vehicles that are available for short trips by members who pay a subscription fee, plus a per trip charge.

CCI

Construction Cost Index: A measurement of the inflation rate in the cost of major construction projects.

CEQA

California Environmental Quality Act: State law providing certain environmental protections that apply to all transportation projects funded with state funds.

CHP

California Highway Patrol: The state law enforcement agency responsible for highway safety.

CHSRA

California High Speed Rail Authority: It was created by the California Legislature in 1996 to develop a plan for the construction, operation, and financing of a statewide, intercity high speed passenger rail system.

CIP

Capital Improvement Program: Long-range strategic plan that identifies capital projects; provides a planning schedule and financing options.

CMIA

Corridor Mobility Improvement Account: A \$4.5 billion congestion relief component of Proposition 1B, a measure approved by voters in 2006 that provides nearly \$19.9 billion in infrastructure bonds.

CMAQ

Congestion Mitigation and Air Quality Improvement Program: A category of funds contained in

SAFETEA-LU for projects and activities that reduce congestion and improve air quality in regions not yet attaining federal air quality standards.

CMP

Congestion Management Program: Required of every county in California with a population of 50,000 or more to qualify for certain state and federal funds. CMPs set performance standards for roads and public transit, and show how local agencies will attempt to meet those standards. The CMP is required to be adopted by the Congestion Management Agency, and it must be consistent with the adopted Metropolitan Transportation Plan (MTP).

CNG

Compressed Natural Gas: A clean-burning alternative fuel for vehicles.

COG

Council of Governments: A voluntary organization of local governments that strives for comprehensive regional planning. AMBAG is the COG for Monterey and Santa Cruz counties.

Community Plan

More specific versions of General Plans, generally dealing with smaller geographical areas, but having the same force of law. See General Plan.

Commuter

A person who travels regularly between home and work or school.

Commuter Rail

Conventional rail passenger service within a metropolitan area. Service primarily is in the morning (home-to-work) and afternoon (work-to-home) travel periods.

Constant Dollars

Dollars expended/received in a specific year adjusted for inflation/deflation relative to another time period.

Conformity

A demonstration of whether a federally-supported activity is consistent with the SIP — per Section 176 (c) of the Clean Air Act. Transportation conformity applies to plans, programs, and projects approved or funded by the Federal Highway Administration or the Federal Transit Administration.

Congestion

Congestion is usually defined as travel time or delay in excess of what is normally experienced under free flow traffic conditions. Congestion is typically accompanied by lower speeds, stop-and-go travel conditions, or queuing, such as behind ramp meters or heavily-used intersections.

Corridor

A broad geographical band that follows a general directional flow connecting major trip origins and destinations. A corridor may contain a number of streets, highways, and transit route alignments.

CPI

Consumer Price Index: Developed by the Bureau of Labor Statistics of the U.S. Department of Labor

to provide a measurement of the inflation rate in the general economy of a given metropolitan area.

CTC

California Transportation Commission: A state agency that sets state spending priorities for many state and federally funded highway and transit projects and allocates funds to those projects. An eleven member commission, nine members are appointed by the Governor, one by the pro dem of the Senate and one by the Speaker of the Assembly.

CTP

California Transportation Plan: A statewide, long-range transportation policy plan that provides for the movement of people, goods, services, and information. The CTP offers a blueprint to guide future transportation decisions and investments that will ensure California's ability to compete globally, provide safe and effective mobility for all persons, better link transportation and land-use decisions, improve air quality, and reduce petroleum energy consumption.

CVO

Commercial Vehicle Operations: Management of commercial vehicle activities through ITS.

Deficiency Plan

Set of provisions contained in a Congestion Management Plan to address congestion when unacceptable levels of congestion occur. Projects implemented through the Deficiency Plan must, by statute, have both mobility and air quality benefits.

Demand Responsive Service

Transit service that is provided in response to a pre-ordered or telephone reservation.

Development Impact Fee

A fee charged to private developers, usually on a per-dwelling-unit or per-square-foot basis, to help pay for infrastructure improvements necessitated as a result of the development.

DOT

Department of Transportation: At the federal level, the cabinet agency headed by the Secretary of Transportation that is responsible for highways, transit, aviation, and ports. The DOT includes the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Federal Aviation Administration (FAA), and other agencies. The state DOT is Caltrans.

Drive Alone

See SOV.

EIR

Environmental Impact Report: An informational document, required under CEQA, which will inform public agency decision-makers and the public generally of the significant environmental effects of a project, possible ways to minimize significant effects, and reasonable alternatives to the project.

EIS

Environmental Impact Statement (federal): National Environmental Policy Act (NEPA) requirement for assessing the environmental impacts of federal actions that may have a significant impact on the human environment.

EMFAC

An Emission Factor Model that estimates on-road motor vehicle emission rates for current year as well as backcasted and forecasted inventories.

Environmental Justice

The fair treatment of people of all races, cultures, and incomes during the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.

EPA

Environmental Protection Agency: Federal agency established to develop and enforce regulations that implement environmental laws enacted by Congress to protect human health and safeguard the natural environment.

E-work

See Telework.

Expressway

Similar to a freeway, but with some signal-controlled intersections.

FAA

Federal Aviation Administration: The federal agency that regulates the use of airspace and is responsible for evaluating and disseminating information about hazards and obstructions to aviation. FAA is a component of the federal DOT.

Farebox Recovery Ratio

The proportion of operating expenses covered by passenger fares. The ratio divides the farebox revenue by the total operating expenses.

Farebox Revenue

The value of cash, tickets, and pass receipts given by passengers for payment for rides on public transit.

Fare Structure

The varying fees charged to use transit, normally differing by the age of the transit rider, single versus multiple transit trips, the type of service (Trolley, express bus, etc.), and, for some types of services, the length of the trip.

Financially Constrained

Expenditures are said to be financially constrained if they are within limits of anticipated revenues.

Fiscal Year

The 12-month period established for budgeting purposes. In California, the commonly accepted fiscal year for governmental purposes begins on July 1 and ends on June 30.

Fixed Route Service

Service provided on a regular, fixed-schedule basis along a specific route, with vehicles stopping to pick up and deliver passengers to specific locations.

FRA

Federal Railroad Administration: Federal agency created to promulgate and enforce rail safety regulations, administer railroad assistance programs, conduct research and development in support of improved railroad safety and national rail transportation policy, and consolidate government support of rail transportation activities.

Freeway

A divided highway with limited access and grade-separated junctions, and without traffic lights or stop signs.

FSP

Freeway Service Patrol: An ongoing program to provide a roving tow and motorist aid service, with technicians who assist or remove stranded and disabled vehicles on designated urban freeways and state roadways during peak period commuting hours. It is operated by the RTPAs in cooperation with Caltrans and the California Highway Patrol.

FTA

Federal Transit Administration: The federal agency responsible for administering federal transit funds and assisting in the planning and establishment of areawide urban mass transportation systems. As opposed to FHWA funding, most FTA funds are allocated directly to local agencies, rather than to Caltrans.

Gas Tax

The tax applied to each gallon of fuel sold. Currently, the federal government has imposed a per-gallon tax of 18.4 cents, and the state has imposed a per-gallon excise tax of 35.3 cents per gallon.

General Plan

A policy document required of California cities and counties by state law that describes a jurisdiction's future development in general terms. All land use decisions must be derived from the document, which includes text, maps, and other information. The General Plan contains a set of broad policy statements about the goals for the jurisdiction, and it also must contain seven mandatory elements: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety.

GHG Emissions

Greenhouse Gas Emissions: Gases that influence global climate change. They include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

GIS

Geographic Information System: Mapping software that links information about where things are with information about what things are like. GIS allows users to examine relationships between features distributed unevenly over space, seeking patterns that may not be apparent without using advanced techniques of query, selection, analysis, and display.

GNP

Gross National Product: An estimate of the total value of goods and services produced in any specified country in a given year. GNP can be measured as a total amount or an amount per capita.

Grade Crossing

A crossing or intersection of highways, railroad tracks, other guideways, or pedestrian walks, or combinations of these at the same level or grade.

Greenfield

Also known as “raw land,” land that is privately owned, lacks urban services, has not been previously developed, and is located at the fringe of existing urban areas.

HCD

State Department of Housing and Community Development: The state agency responsible for, among other things, overseeing the development of the Regional Housing Needs Allocation (RHNA) and the General Plan Housing Elements for all the local jurisdictions in the region.

HCM

Highway Capacity Manual: A resource for generating technical information that is used by transportation planners, designers, and operators. The materials contained in the HCM represent a collection of state of the art techniques for estimating level of service for many transportation facilities and modes.

HCP

Habitat Conservation Plan: Established under Section 10 of the Endangered Species Act to allow development to proceed while protecting endangered species.

HDT

Heavy-Duty Truck: Truck with a gross vehicle weight of 8,500 pounds or more.

Heavy Rail

Railroad services that operate in a mixed-user environment on conventional railroad tracks. Heavy rail services include freight trains, Amtrak, Commuter Rail, and most conventional rail transit systems.

Highway

A general term usually referring to a state or federally-designated urban or rural route, designed to accommodate longer trips in the region.

Household

All people living in a housing unit, regardless of whether they are related to one another. Housing units include houses, condominiums, apartments, and mobile homes.

HOV

High Occupancy Vehicle: A vehicle that carries more than one occupant. Examples include carpools, vanpools, shuttles, and buses.

HOV Lane

High Occupancy Vehicle Lane: An exclusive road or traffic lane that typically has a higher operating speed and lower traffic volumes than a general purpose or mixed-flow lane. In California, vehicles that typically can use HOV lanes include carpools, vanpools, buses, other multi-passenger vehicles, and motorcycles and emergency vehicles.

HPMS

Highway Performance Monitoring System: A federally mandated program designed by FHWA to assess the performance of the nation's highway system.

HSR

High Speed Rail: Railroad passenger service that, as defined by California state law, operates at maximum speeds of more than 200 miles per hour. Because of the speed, high speed rail normally operates on intercity (longer) routes.

HUD

U.S. Department of Housing and Urban Development: Federal agency charged with increasing homeownership, supporting community development, and increasing access to affordable housing free from discrimination.

ICM

Integrated Corridor Management: A collaborative, cooperative, and coordinated system in which corridor partners work together to improve mobility and safety across modes and networks for people and goods.

IGR

Intergovernmental Review Process: The review of documents by several governmental agencies to ensure consistency of regionally significant local plans, projects, and programs with AMBAG's adopted regional plans.

Incident

An incident may be a traffic collision, stalled vehicle, load spillage, or other event that affects one or more lanes of traffic.

Integrated Performance Management Systems Network

This network will connect the region's local transportation management centers, and will enable agencies to cooperatively manage the overall performance of the local and regional transportation systems.

Intercity Rail

Railroad passenger service that primarily serves longer trips, such as those between major cities or regions.

Intermodal

Passenger or freight transportation services which involve or use more than one type of transportation facility (or mode). Aviation, automobile, rail, and transit are travel modes.

ITS

Intelligent Transportation Systems: A general classification of transportation technologies, management tools, and services made possible through advances in computer and communication technologies. ITS is used to make transportation systems safer and more efficient.

JARC

Jobs Access Reverse Commute: The SAFETEA-LU formula fund program that provides support for

capital or operating costs for transportation services and facilities designed to facilitate reverse commute employment-related travel for people with limited means.

JPA

Joint Powers Authority: Two or more agencies that enter into a cooperative agreement to jointly wield powers that are common to them. JPAs are a vehicle for the cooperative use of existing governmental powers to finance and provide infrastructure and/or services in a cost-efficient manner.

LEP

Limited English Proficiency

Light Rail

A passenger transportation system of self-propelled vehicles that operate over steel rails located in the street, on an aerial structure, or on a separated right of way.

LIM

Low Income and Minority communities

LNG

Liquefied Natural Gas: An alternative liquid fuel derived from a natural gas that is cooled to below its boiling point so it becomes a liquid.

LOS

Level of Service: A qualitative measure describing operational conditions within a traffic stream and motorists' perceptions of those conditions. LOS ratings typically range from LOS A, which represents free-flow conditions, to LOS F, which is characterized by heavy congestion, stop-and-go traffic, and long queues forming behind breakdown points.

Low Income Community of Concern

A Low Income Community of Concern is any community in which 33 percent or more of households are low income, and/or 10 percent or more of the households are severely overcrowded, and/or 25 percent or more of the population is in poverty.

LRT

Light Rail Transit: A type of transit vehicle and service that uses steel wheels and operates over railroad tracks. LRT systems generally serve stations averaging one-mile apart, are not remotely controlled, and can operate in a separated right of way or on public streets.

MAP-21

Moving Ahead for Progress in the 21st Century: On July 6, 2012 President Obama signed into law a new two-year transportation authorization, MAP-21. The first long-term highway authorization enacted since 2005, MAP-21 creates a streamlined, performance-based and multimodal program to address the challenges facing the U.S. transportation system.

MBUAPCD

Monterey Bay Unified Air Pollution Control District: The MBUAPCD is a government agency that regulates sources of air pollution within the tri-county region.

Minority Community of Concern

A Minority Community of Concern is any community in which 65 percent or more of the population is non-White.

Mixed Flow

Traffic movement having autos, trucks, buses, and motorcycles sharing traffic lanes.

Mixed Use

The combining of commercial, office, and residential land uses to provide easy pedestrian access and reduce the public's dependence on driving. It can be implemented in multi-story buildings containing businesses and retail stores on the lower floors, and homes on the upper floors.

Mode

A particular form of travel (e.g., walking, traveling by automobile, traveling by bus, or traveling by train).

Mode Split or Mode Share

The percentage of trips that use each of the various travel modes.

Model

A mathematical description of a real-life situation that uses data on past and present conditions to make a projection.

MPO

Metropolitan Planning Organization: A federally-designated agency that is responsible for regional transportation planning in each metropolitan area. AMBAG is the MPO for the Monterey Bay Area.

MTIP

Metropolitan Transportation Improvement Program (MTIP): A five-year listing of major highway, transit, and active transportation projects including project costs, funding sources, and development schedules. Compiled from priority lists submitted by local jurisdictions and transportation agencies.

MTP

Metropolitan Transportation Plan: A minimum 20-year plan that is required by state and federal law to guide the development of the region's transportation system.

NCCP

Natural Communities Conservation Plan: Program under the Department of Fish and Game that uses a broad-based ecosystem approach toward planning for the protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity.

Nominal Dollars

Actual dollars expended/received in a specific year without adjustments for inflation/deflation.

NTD

National Transit Database: The Federal Transit Administration's (FTA) national database for transit statistics.

O&M

Operations and Maintenance: The range of activities and services provided by the transportation system and for the upkeep and preservation of the existing system.

Off-Peak Period

The time of day when the lowest concentration of vehicles or transit riders are on the road or on another transit facility. These times are generally before 6 A.M., between 9 A.M. and 3 P.M., and after 6 P.M.

Open Space

Generally understood as any area of land or water which, for whatever reason, is not developed for urbanized uses and which therefore enhances residents' quality of life. However, note that each county and city in California must adopt an open space element as part of its general plan. The element is a statement of local planning policies focusing on the use of unimproved land or water for: 1) the preservation or managed production of natural resources, 2) outdoor recreation, and 3) the promotion of public health and safety. Therefore, open space will be defined by each jurisdiction based on their own unique resources and environment.

OWP

Overall Work Program: AMBAG develops an OWP annually, describing proposed transportation planning activities for the upcoming fiscal year, including those required by federal and state law.

Paratransit

A specialized, door-to-door transport service for people with disabilities who are unable to use standard bus or commuter rail services.

Park-and-Ride

A travel option in which commuters park their personal vehicles in a public lot or other location, and continue their trip via carpool, vanpool, or transit.

Park-and-Ride Lot

A facility where individuals can meet to utilize carpools, vanpools, and public transit to continue traveling to their destinations.

Passenger Miles

The total number of passengers carried by a transit system, multiplied by the number of miles each passenger travels. Passenger miles are normally measured on a daily or annual basis.

Peak Period

The time of day when the highest concentrations of vehicles or transit riders are on the road or on another transit facility. The morning peak period is generally considered to be from 6 A.M. to 9 A.M.; the afternoon peak period is from 4 P.M. to 7 P.M.

PEIR

Program Environmental Impact Report: Environmental review process used to evaluate the potential environmental effects of large-scale plans or programs.

PeMS

Performance Monitoring System: The PeMS program uses urban freeway data collected through freeway loop detectors to provide current, ongoing data on freeway volumes and speeds that can be displayed graphically and exported to other monitoring applications.

Performance Measures

Objective, quantifiable measures used to evaluate the performance of the transportation system, and to determine how well planned improvements to the system are achieving established objectives.

Person Trip

Any person's one-way travel to any destination for any purpose. More specifically, a trip is the one-way movement from an origin to a destination, whereby each trip has two trip ends.

PSR

Project Study Report: A preliminary engineering report that documents agreements on the scope, a set of reasonable and feasible alternatives, the schedule, and the estimated cost of a project so that the project can be included in a future State Transportation Improvement Program (STIP).

Public Transit

See Public Transportation.

Public Transportation

Travel by bus, rail, or other vehicle, either publicly or privately owned, that provides general or specialized service on a regular or continuing basis.

Ramp Metering

Electronic traffic control devices located at freeway access points to meter the entry of vehicles onto the freeway. The goal is to help optimize the movement of persons and vehicles.

Reverse Commute

Travel in the direction opposite to the main flow of peak period commute traffic.

RHNA

Regional Housing Needs Assessment: Quantifies the need for housing within each jurisdiction of the AMBAG region based on population growth projections. Communities then address this need through the process of completing the housing elements of their General Plans.

Ridership

The number of transit users, usually reported as a yearly total or as the average for a normal workday.

Ridesharing

A mode of travel in which at least two individuals share the same vehicle to get to their destination. Rideshare vehicles include private automobiles, privately owned and operated vans and buses, as well as public transportation.

Route Miles

The length of a transit route or service, multiplied by the number of trips made by transit vehicles or

trains each day.

ROW

Right of Way: The land required for the construction and/or operation of transportation infrastructure.

RTPA

Regional Transportation Planning Agency: A state-designated agency responsible for preparing the RTP, and for administering state transportation funds.

State Highway

A state-designated roadway. May be urban or rural.

Safe Routes to School

A state and federal program that funds education, encouragement campaigns, and infrastructure improvements to help decrease traffic congestion around schools, and to make the the journey to school on foot or bike more feasible for children.

Safe Routes to Transit

A program that funds strategies to address the challenges of getting to and from a transit stop or station. These strategies include first-mile/last-mile solutions such as enhanced pedestrian crosswalks near transit stations, bicycle lanes that connect to transit and bike parking at transit stations, feeder-distributor bus/shuttle routes, car sharing/station cars, and ridesharing.

SAFETEA-LU

Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users: Federal legislation signed into law on August 10, 2005 authorizing \$244.1 billion for Federal surface transportation programs for highways, highway safety, and transit for the five-year period between 2005 and 2009. At the time of this writing, Congress had not yet passed a re-authorization of a multi-year transportation bill. In its place, Congress has approved a series of extensions, known as Continuing Resolutions, to keep federal funds flowing at the last approved annual funding level to SAFETEA-LU formula programs.

SB 45

Senate Bill 45 (Chapter 622, Statutes of 1997, Kopp): Established the current STIP process and shifted control of decision-making from the state to the regional level.

SB 375

Senate Bill 375 (Chapter 728, Steinberg): Established to implement the state's greenhouse gas (GHG) emission-reduction goals, as set forth by AB 32, in the sector of cars and light trucks. This mandate requires the California Air Resources Board to determine per capita GHG emission-reduction targets for each metropolitan planning organization (MPO) in the state at two points in the future—2020 and 2035. In turn, each MPO must prepare a Sustainable Communities Strategy (SCS) that demonstrates how the region will meet its GHG reduction target through integrated land use, housing, and transportation planning.

SCS

Sustainable Communities Strategy: A new element of the MTP, as required by SB 375, that

demonstrates how development patterns and the transportation network, policies, and programs can work together to achieve the state's targets for reducing regional greenhouse gas (GHG) emissions from cars and light trucks in a region.

SHOPP

State Highway Operation and Protection Program: Caltrans' three-year program to address traffic safety, roadway rehabilitation, roadside rehabilitation, or operations needs on the state highway system.

Smart Growth

A compact, efficient, and environmentally-sensitive pattern of development that provides people with additional travel, housing, and employment choices by focusing future growth away from rural areas and closer to existing and planned job centers and public facilities, while preserving open space and natural resources.

Social Equity

Social Equity means ensuring that all people are treated fairly and are given equal opportunity to participate in the planning and decision-making process, with an emphasis on ensuring that traditionally disadvantaged groups are not left behind.

SOV

Single Occupant Vehicle: Privately operated vehicle that contains only one driver or occupant.

STIP

State Transportation Improvement Program: A multi-year program of major transportation projects to be funded by the state. The CTC adopts the STIP every two years, based on projects proposed in RTIPs and from Caltrans.

STA

State Transit Assistance: State funding program for mass transit operations and capital projects. Current law requires that STA receive 50 percent of PTA revenues.

STP

Surface Transportation Program: Provides flexible funding that may be used by states and localities for projects on any federal-aid highway, bridge projects on any public road, transit capital projects, and intracity and intercity bus terminals and facilities. A portion of funds reserved for rural areas may be spent on rural minor collectors.

TAZ

Traffic Analysis Zone: a geographic unit used for transportation modeling. A TAZ is smaller than a census tract and a Trip Distribution Zone (TDZ).

TDA

Transportation Development Act: State law enacted in 1971 that provided a 0.25 percent sales tax on all retail sales in each county for transit, bicycle, and pedestrian purposes. In non-urban areas, funds may be used for streets and roads under certain conditions.

TCRP

Transportation Congestion Relief Program.

TDM

Transportation Demand Management: Programs to reduce demand by automobiles on the transportation system, by promoting telecommuting, flex-time, bicycling, walking, transit use, staggered work hours, and ridesharing.

TEA-21

Transportation Efficiency Act for the 21st Century: Federal legislation enacted in 1998, authorizing the preparation and funding of a surface transportation program. Like previous ISTEA legislation, TEA-21 emphasizes diversity and a balance of modes, as well as the preservation of existing systems before the construction of new facilities.

Telework

Teleworkers or e-workers are employees who conduct some or all of their daily work activities from their home or from a remote site other than the normal work site, in order to avoid commuting during peak periods.

Title VI of the Civil Rights Act

Title VI of the Civil Rights Act states that “no person in the United States, shall, on the grounds of race, color or national origin be excluded from participation in, be denied the benefits of, or be subject to discrimination under any program or activity receiving federal financial assistance.”

TPP

Transit Priority Project: Under SB 375, a project is exempt from CEQA if it (1) qualifies as a “transit priority project” and (2) meets the “sustainable communities project” requirements as declared by the legislative body of the local jurisdiction.

TransCAD

A computer model that simulates travel demand and its distribution to facilities within a geographic area.

Transit

See Public Transportation.

Transit Management System

A field operations management system that enables improved transit route planning, scheduling, and performance monitoring.

Transit-Oriented Development

Residential and employment growth that occurs near existing and planned public transit facilities.

Trip

See Person Trip and/or Vehicle Trip.

TSM

Transportation Systems Management: Strategies that allow transportation systems to operate in a way

that maximizes the number of people traveling in a corridor or facility. These strategies include traffic flow improvements, ramp metering, tracking public transit vehicles; and keeping travelers informed.

U.S. DOT

United States Department of Transportation: The federal cabinet-level agency with responsibility for highways, mass transit, aviation, and ports and headed by the Secretary of Transportation. The DOT includes the Federal Highway Administration and the Federal Transit Administration, among other agencies.

U.S. EPA

U.S. Environmental Protection Agency: The federal agency charged with setting policy and guidelines, and carrying out legal mandates, for the protection of national interests in environmental resources.

Vanpool

A vehicle operating as a ridesharing arrangement, providing transportation to a group of individuals typically traveling directly between their homes and employment locations within the same geographic area.

V/C Ratio

Volume to Capacity Ratio: The volume of traffic divided by the capacity of a transportation facility. Traffic volume is defined as the number of vehicles passing (or projected to pass) a point or section of roadway in a given time interval. Capacity is defined as the maximum number of vehicles that reasonably can be expected to traverse that point or section of roadway during the same time period under prevailing roadway, traffic, and control conditions.

Vehicle Trip

A single vehicle movement from the beginning of travel to its destination, in a vehicle that is motor-driven (e.g., automobiles, motorcycles, trucks, buses, and vans).

VMT

Vehicle Miles Traveled: On highways, a measurement of the total miles traveled by all vehicles in the area for a specified time period. It is calculated by the number of vehicles times the miles traveled in a given area or on a given highway during the time period. In transit, the number of vehicle miles operated on a given route or line or network during a specified time period.

Work Trip

Any “person” or “vehicle” trip whose purpose (on at least one trip end) involves work or work-related business.



Monterey Bay 2035
**Moving
Forward**

Sustainability.
Mobility.
Accessibility.
Economy.
Social Equity.

