

3 Environmental Setting and Impact Analysis Approach

This section provides a general overview of the environmental setting for the 2040 MTP/SCS, including a regional setting, sub-regional setting and a description of the regional transportation system. This section also outlines the EIR baseline and approach to both direct and cumulative impact analyses. More detailed descriptions of the environmental setting for each environmental issue area can be found in Section 4.0, *Environmental Impact Analysis*.

3.1 Regional Setting

The Monterey Bay region is comprised of Monterey, San Benito and Santa Cruz counties. These counties are located along the Central Coast of California and generally surround Monterey Bay. Monterey Bay is located south of the San Francisco Bay area and north of San Luis Obispo County. San Mateo and Santa Clara counties are located to the north; Merced and Fresno counties are located to the east. Monterey County shares a short border segment with Kings County to the southeast. The combined area encompasses approximately 3.3 million acres, incorporating the Pajaro and Salinas River Valleys, adjacent coastal lowland and surrounding mountains. Terrain within the region is varied. The Santa Cruz, Gabilan and Santa Lucia mountain ranges and the Diablo range are located along the eastern border of the tri-county region. The highest elevation is the Junipero Serra Peak (5,860 feet above sea level), located in Monterey County. The Pajaro and Salinas Valleys contain some of the most productive agricultural soils in the United States of America.

3.2 Sub-Region Descriptions

Monterey County covers approximately 2.1 million acres, of which approximately 1.3 million acres are in agricultural use (irrigated cropland, dry farming, grazing, animal husbandry and related agricultural services) (DOC, 2015). San Benito County covers approximately 890,000 acres, with approximately 670,000 acres in agricultural use (DOC, 2015). Santa Cruz County covers approximately 282,000 acres, with approximately 38,000 acres in agricultural use (DOC, 2015).

The AMBAG's Draft 2018 Regional Growth Forecast (AMBAG, 2017d) estimates the population of each county within the tri-county region as of January 2015, as the following:

- Monterey County: 432,637
- San Benito County: 56,445
- Santa Cruz County: 273,594

The total population within the tri-county region is estimated at approximately 762,676 people. Most of the population is concentrated within the coastal plain that extends from the Santa Cruz/Capitola area in the north and the Monterey Peninsula to the south. The largest city in Monterey County is Salinas, with an estimated population of 159,486 people or approximately 21 percent of the total population within the AMBAG region (AMBAG, 2017d). Other urban population

centers include the cities of Monterey, Carmel-by-the-Sea, Pacific Grove, Marina, Sand City, Seaside and Del Rey Oaks. The cities of Gonzales, Soledad, Greenfield and King City are located in the Salinas River Valley southeast of Salinas. Monterey County contains several unincorporated communities, including Carmel Valley, Del Monte Forest, Pine Canyon, Castroville, Elkhorn, Las Lomas, Pajaro and Prunedale. In San Benito County, the cities of Hollister and San Juan Bautista are the only urban centers. Within Santa Cruz County, the population is concentrated in Capitola, Santa Cruz, Scotts Valley and Watsonville. Unincorporated communities include Aptos, Freedom, Live Oak and Soquel.

The tri-county economy is primarily based on agriculture. Tourism also is important particularly in Santa Cruz and Monterey during summer months. Cities such as Santa Cruz/Scotts Valley, Hollister and unincorporated areas located in the northern portion of the region serve as bedroom communities for people working in Silicon and Santa Clara Valley to the north.

3.3 Regional Transportation System

3.3.1 Monterey County

Monterey County owns and maintains approximately 1,240 miles of roads. In addition, there are 575 miles of private roads, two minor highways (Highway 25 and 146) and five major highways that include State Route (SR) 1, SR 68, SR 156, SR 183 and U.S. 101.

Within northern Monterey County, U.S. 101 is a rural four-lane highway with left-turn channelization at most intersections. In southern Monterey County, U.S. 101 is the primary north-south corridor through the Salinas Valley, between Salinas and the cities of Gonzales, Soledad, Greenfield and King City. This four-lane freeway/expressway provides connections to Routes 198 and 146 in South County.

SR 183 is 10 miles in length, beginning at the junction of U.S. 101 in Salinas and continuing westerly to the junction of SR 1 in Castroville. Route 156 is a two-lane highway, serving as an east-west connector from U.S. 101 to SR 1 and the Monterey Peninsula. SR 146 is a two-lane highway beginning in Soledad and continuing to the junction of Route 25 in San Benito County. This is a primary access route to the Pinnacles National Monument.

SR 198 is a 25.8-mile, two-lane conventional highway, beginning at U.S. 101 just west of San Lucas and continuing east to the Fresno County line. SR 25 is a two-lane rural highway, beginning at the junction of Route 198 and continuing north to the San Benito County line. It primarily serves inter-regional traffic between Monterey, San Benito and Santa Clara counties.

Both passenger and freight rail service are available in Monterey County. Amtrak provides rail services twice daily via a station stop in Salinas. Four freight stations are located at Castroville, Gonzales, Salinas and Watsonville Junction (Pajaro Community Area). Public transit services are provided by Monterey-Salinas Transit (MST) and Greyhound Lines. MST is a publicly owned and operated system providing service to the greater Monterey and Salinas areas with routes serving Carmel Valley and unincorporated areas in northern Monterey County. Greyhound provides intercity passenger service between Monterey Peninsula cities, Salinas and Salinas Valley cities, as well as destinations across California and nationally.

Monterey County has approximately 887 miles of bicycle and pedestrian routes. One of the major continuous bicycle paths in the county is the Monterey Bay Coastal Bike Trail, which is approximately 29 miles long stretching from Castroville to the Monterey Peninsula and parts of Pebble Beach. The Monterey Bay Coastal Bike Path runs adjacent to the Fort Ord Dunes State Park

located between the cities of Marina and Seaside. The state park also contains its own bike path that is accessible on both ends of the Fort Ord Dunes Park from the Monterey Coastal Bike Path. Sections of the Monterey Bay Sanctuary Scenic Trail Network have been completed in Monterey County between Pacific Grove and Monterey, between Sand City and Seaside and between Marina and Castroville. Most of these sections are Class I bikeways, but short sections are Class II and Class III (TAMC 2008).

Monterey County is served by four airports: Monterey Regional Airport, Salinas Municipal Airport, Marina Municipal Airport and Mesa Del Rey Airport (King City). The Monterey Regional Airport is owned and operated by the Monterey Peninsula Airport District and is served by commercial air carriers (Monterey County 2007).

3.3.2 San Benito County

Countywide there are approximately 90 miles of State highways and 306 miles of roadways under the jurisdiction of the California Department of Parks and Recreation. Within unincorporated San Benito County, there are approximately 384 miles of local County roadways. Caltrans maintains five State highways in San Benito County: SR 25, 129, 146, 156 and U.S. 101.

SR 25 traverses the entire length of San Benito County from the southern county boundary at the junction of SR 198 near King City north through Paicines, Tres Pinos and Hollister to the northern county boundary near Gilroy, where it connects to U.S. 101.

SR 129 extends from Santa Cruz County into the northwestern portion of San Benito County connecting to U.S. 101 approximately 2.6 miles from the Santa Cruz-San Benito County Line. SR 129 is a two-lane rural road providing access to Santa Cruz and Monterey County Beaches.

SR 146 in San Benito County is a two-lane minor arterial used primarily to provide access from SR 25 to the Pinnacles National Monument.

SR 156 traverses northern San Benito County from U.S. 101 west of San Juan Bautista through San Juan Bautista and Hollister to the San Benito-Santa Clara County Line where it connects with SR 152.

U.S. 101 passes through the northwestern portion of San Benito County for 7.4 miles and serves primarily inter-regional traffic.

San Benito County Express is the primary transit provider in the county with services in Hollister and countywide via intercity connections. The County Express system currently provides three fixed routes in the City of Hollister, complementary ADA paratransit service and a general public Dial-A-Ride. There is currently no passenger rail service in San Benito County. The County Express provides a connection to commuter and regional rail service in Gilroy which is located in south Santa Clara County. Freight rail service to Hollister and northern San Benito County is provided by the Union Pacific Hollister Branch Line.

Bicycle facilities in the county are generally concentrated in and around Hollister. Within San Juan Bautista, a short section of San Juan Highway in the northern part of town has designated bike lanes. The Juan Bautista de Anza National Historic Trail traverses San Juan Bautista and the western part of the county. The cities of Hollister and San Juan Bautista generally have continuous sidewalks on most streets in their central and core areas and in newer neighborhoods. Pedestrian sidewalks in unincorporated areas of the county are generally provided in discontinuous segments or they are non-existent.

San Benito County has one public airport (Hollister Municipal airport), one private airport (Frazier Lake Airpark) and several landing strips. Regional airport services are provided by San Jose International Airport and Monterey Peninsula Airport (San Benito County, 2010a).

3.3.3 Santa Cruz County

There are six State Highways in Santa Cruz County. SR 1 runs north/south through the entire county. Highway 17 traverses the Santa Cruz Mountains connecting the county with the San Jose/San Francisco Bay Area. Highway 9 is a mountainous road connecting Santa Cruz to towns in the San Lorenzo Valley as well as providing another route over the Santa Cruz Mountains to Los Gatos and Saratoga in Santa Clara County. Highway 236 connects Boulder Creek to Big Basin Redwoods State Park and Highways 152 and 129 connect Watsonville in south Santa Cruz County. There are 1,137 total miles of roadway in the county. Arterial roads comprise 15 percent of the roadway miles.

The Santa Cruz Metropolitan Transit District (or METRO) provides essential bus transit services for all residents, including students, Highway 17 commuters and transit dependent and choice riders. The county's network of local and express bus routes includes transit centers in Felton, Scotts Valley, Santa Cruz, Capitola and Watsonville. METRO buses serve 479 miles of road throughout the county and cover most arterial and collector routes. Transit to Monterey County is provided at the Watsonville Transit Center via connections with MST. Greyhound provides service from Santa Cruz to surrounding regions.

Freight rail service, once operated by Southern Pacific Railroad, then by Union Pacific and now by Monterey Bay Railway (Iowa Pacific Holdings), has been a historically important form of transportation within Santa Cruz County. There are currently three rail lines in or adjacent to Santa Cruz County. The Santa Cruz Branch rail line extends from Watsonville Junction in Pajaro north to Davenport and passes through much of the county's urban area. The Felton Branch rail line is owned and operated by the private Santa Cruz Big Trees & Pacific Railway Company and primarily provides summertime and holiday excursions between Felton and the Beach Boardwalk in Santa Cruz. The line is also occasionally used for freight. The Coast Rail Route is the Union Pacific main coastal line extending from San Jose to San Diego. A stop for the proposed Amtrak Coast Daylight service is planned at the Pajaro Station located at the Watsonville Junction.

Santa Cruz County has approximately 215 miles of bikeways, 190 of them (bidirectional) bike lanes and 25 of those are separated paths. Sidewalks and pedestrian infrastructure are located throughout the urbanized areas of the county and considered in all new project designs.

The Watsonville Municipal Airport, developed in 1942, is the only public use airport in Santa Cruz County. There are also three private airstrips within the county, located in Bonny Doon, at the Monterey Bay Academy and Las Trancas/Big Creek. The closest scheduled air service is available at Monterey Airport and San Jose International Airport (Santa Cruz County, 1994a).

3.4 Mitigation Approach, EIR Baseline, Approach for Direct and Cumulative Analyses

3.4.1 Mitigation Approach

This EIR includes proposed mitigation measures to reduce impacts and identifies agencies for implementation of those mitigation measures. AMBAG, TAMC, SBtCOG and SCCRTC have lead agency status; and therefore, authority to enforce mitigation measures for projects for which they

have discretionary authority. However, AMBAG, TAMC, SBtCOG and SCCRTC do not have authority to require recommended mitigation measures be implemented by other implementing agencies (e.g., Caltrans, counties, cities, transit agencies, etc.) that are responsible agencies for this 2040 MTP/SCS and RTPs EIR, but will be lead agencies for future transportation and land use development projects. It is the responsibility of the lead agency implementing specific 2040 MTP/SCS projects to conduct environmental review consistent with CEQA and where applicable, incorporate mitigation measures provided herein and developed specifically for the project to reduce. Project-specific environmental documents may adjust the mitigation measures identified in this EIR as necessary to respond to site-specific conditions.

3.4.2 EIR Baseline

Section 15125 of the CEQA Guidelines states that an EIR “must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation [NOP] is published.” Section 15125 states that this approach “normally constitute[s] the baseline physical conditions by which a lead agency determines whether an impact is significant.”

This EIR evaluates impacts against existing conditions which are generally conditions existing at the time of the release of the NOP (December 2015). It was determined that a comparison to current, existing baseline conditions would provide the most relevant information for the public, responsible agencies and AMBAG decision-makers. For some issue areas, this EIR also includes consideration of impacts against a forecast future baseline condition in addition to the current, existing (2015) baseline conditions, controlling for impacts caused by population growth and other factors that would occur whether or not the 2040 MTP/SCS or the RTPs prepared by the Monterey, San Benito and Santa Cruz RTPAs are adopted. This future baseline analysis is provided for informational purposes only. For certain issue areas (including air quality, greenhouse gas emissions/climate change, energy, noise and transportation/circulation), impacts would occur as a result of background population growth, urbanization and volume of average daily traffic increases in the region that would occur by 2040, with or without implementation of the 2040 MTP/SCS. Thus, for these issue areas, a comparison to a future 2040 baseline is provided for informational purposes. However, all impact determinations are based on a comparison to existing 2015 baseline conditions.

3.4.2.1 Interim Timeframes

2040 is the horizon year of the proposed 2040 MTP/SCS. While the 2040 MTP/SCS would be implemented gradually over the planning period, this EIR does not analyze interim time frames because the four-year update cycle of the MTP/SCS and the RTPs prepared by the Monterey, San Benito and Santa Cruz RTPAs already requires short-term adjustments to the Plan. The one exception to this approach is in Section 4.8, *Greenhouse Gas Emissions/Climate Change*, which examines impacts for the year 2020, 2030 and 2035, as well as a comparative baseline of both 1990 and 2005, to satisfy statutory requirements and address state goals related to GHG emissions (Health & Safety Code, § 38551(b)). A summary of the scenarios considered in the GHG analysis is provided in Section 4.8.2 in Section 4.8, *Greenhouse Gas Emissions/Climate Change*.

3.4.3 Approach for Direct Impact Analysis

The programmatic nature of the 2040 MTP/SCS necessitates a general approach to the evaluation of existing conditions and impacts associated with the proposed project. As a programmatic document, this EIR presents a region-wide assessment of the impacts of the 2040 MTP/SCS. These impacts are examined for both transportation network improvements and the regional growth and

land use changes forecasted. Because the EIR is a long-term document intended to guide actions over 25 years into the future, program-level and qualitative evaluation is involved. Quantitative analyses are provided where applicable with available information. During future stages in planning and implementation of specific elements of the 2040 MTP/SCS, including land development resulting from regional growth and transportation improvements identified in the 2040 MTP/SCS, project-specific CEQA documents will be prepared by the appropriate project implementation agency.

For analytical purposes, the baseline year examined throughout this EIR is 2015, except where specifically noted, as further described in Section 3.4.1.1 above.

3.4.4 Approach for Cumulative Analysis

CEQA defines cumulative impacts as “two or more individual effects which, when considered together, are considerable, or which can compound or increase other environmental impacts.” Section 15130 of the CEQA Guidelines requires that an EIR evaluate environmental impacts that are individually limited but cumulatively considerable. These impacts can result from the proposed project alone, or together with other projects. The CEQA Guidelines state: “The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present and reasonably foreseeable probable future projects” (CEQA Guidelines, Section 15355). A cumulative impact of concern under CEQA occurs when the net result of combined individual impacts compounds or increases other overall environmental impacts (CEQA Guidelines, Section 15355). In other words, cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. CEQA does not require an analysis of incremental effects that are not cumulatively considerable nor is there a requirement to discuss impacts which do not result in part from the project evaluated in the EIR.

3.4.4.1 *Cumulative Impact Methodology*

The 2040 MTP/SCS addresses cumulative conditions by design. The Plan area is comprised of 3.3 million acres and includes three counties and 18 cities. It integrates transportation investments with land use strategies for an entire region of the state that shares, or is connected by, common economic, social and environmental characteristics. As such, the environmental analysis of the 2040 MTP/SCS presented throughout this Draft EIR is a cumulative analysis consistent with CEQA policies. Furthermore, this Draft EIR contains detailed analysis of regional (cumulative) impacts, which are differentiated from localized impacts that may occur at the county level.

The following discussion examines impacts associated with implementation of the 2040 MTP/SCS, plus implementation of projected development for jurisdictions adjoining the AMBAG region, to develop an approach to address cumulative impacts from growth extending beyond the region’s boundaries.

When evaluating cumulative impacts, CEQA allows the use of either a list of past, present and probable future projects, including projects outside the control of the lead agency, or a summary of projections in an adopted planning document, or a combination of the two approaches. The cumulative analysis presented below uses a projections-based approach. (See CEQA Guidelines Section 15130B)(1). Land use and growth projections for the region, which are the subject of analysis throughout this Draft EIR, are combined with the growth projections for the adjoining counties. Adjoining counties are listed as follows:

- **San Mateo County.** San Mateo County is located north of the Plan area, north of Santa Cruz County along the Pacific coast. San Mateo County encompasses a major portion of the San Francisco Peninsula, covering approximately 554 square miles, including 106 square miles of inland waters and San Francisco Bay tidal areas. The eastern (bayside) portion of the County is comprised of dense urban development, while the western (coast side) is largely undeveloped except for small rural centers (San Mateo County, 1986).
- **Santa Clara County.** Santa Clara County is located northeast of the Plan area, east of Santa Cruz County and north of San Benito County. The County, which encompasses 1,300 square miles, is a major employment center for the region, providing more than 25 percent of all jobs in the Bay Area. The northern portion of the County is extensively urbanized, while the southern portion of the County is predominantly rural (Santa Clara County, 1994).
- **Merced County.** Merced County is located east of the northern portion of the Plan area, east of San Benito County. Merced County encompasses 1,980 square miles, 98 percent of which is unincorporated and sparsely populated (Merced County, 2013).
- **Fresno County.** Fresno County is located east of the Plan area, east of San Benito and Monterey counties. The County contains substantial amounts of agricultural land. However, the Fresno/Clovis metropolitan area is one of the most populous in the state with almost 500,000 residents (Fresno County, 2000).
- **Kings County.** Kings County is located east of the Plan area, east of the southern portion of Monterey County. Kings County is a predominantly agricultural based County, with 90.2 percent of all land devoted to agricultural uses, with population centered in the cities of Avenal, Corcoran, Hanford and Lemoore (Kings County, 2010).
- **Kern County.** Kern County is located southeast of the Plan area, southeast of the southeastern-most corner of Monterey County. Kern County is California's third largest county in land area, encompassing 8,202 square miles. The County includes 11 incorporated cities, with Bakersfield as the city with the largest population. The remainder of the County is generally characterized as rural (Kern County, 2004).
- **San Luis Obispo County.** San Luis Obispo County is located south of the Plan area, south of Monterey County. The County is largely agricultural, with population concentrated in four regions: North County, North Coast, San Luis Obispo and South County (San Luis Obispo County, 2015).

The area that includes the Monterey Bay Area and the above-referenced adjoining counties is referred to in this analysis as the "cumulative impact analysis area." As shown in Table 4, the population for the cumulative impact analysis area is projected to grow from just over 5.2 million people to 6.5 million by 2040.

Table 4 Population, Households and Employment Projections of Cumulative Impact Analysis Area, 2015-2040

| Adjoining County | Acreage ¹ | Population ² | | Households ² | | Jobs ² | |
|---------------------------|----------------------|-------------------------|------------------|-------------------------|------------------|-------------------|------------------|
| | | 2015 | 2040 | 2015 | 2040 | 2015 | 2040 |
| Fresno | 3,816,320 | 980,980 | 1,271,051 | 299,500 | 362,700 | 371,900 | 475,800 |
| Kern | 5,210,240 | 884,436 | 1,160,259 | 263,000 | 330,800 | 317,500 | 396,800 |
| Kings | 890,240 | 149,813 | 201,071 | 42,300 | 58,400 | 46,100 | 59,300 |
| Merced | 1,234,560 | 270,156 | 353,895 | 77,000 | 96,400 | 77,500 | 96,600 |
| San Luis Obispo | 2,114,560 | 276,142 | 315,287 | 105,000 | 120,200 | 119,400 | 141,600 |
| San Mateo | 287,360 | 762,327 | 880,166 | 261,300 | 292,600 | 392,900 | 494,900 |
| Santa Clara | 826,240 | 1,915,407 | 2,352,368 | 625,800 | 749,100 | 1,033,100 | 1,278,000 |
| AMBAG Region ³ | 3,273,600 | 762,676 | 883,300 | 262,660 | 305,293 | 337,600 | 395,000 |
| Total | 17,653,120 | 6,001,937 | 7,417,397 | 1,936,560 | 2,315,493 | 2,696,000 | 3,338,000 |

¹ Caltrans 2015 (http://www.dot.ca.gov/hq/tsip/data_library/QuickFacts/QFco.php)

² The California Economic Forecast 2016 (http://www.dot.ca.gov/hq/tpp/offices/eab/socio_economic.html)

³ AMBAG Draft 2018 Regional Growth Forecast (<http://www.ambag.org/programs-services/planning/regional-growth-forecast>)

As shown in Table 4, in the cumulative impact analysis area the AMBAG region comprises approximately 12.7 percent of the existing population, 13.6 percent of the existing number of households and 12.5 percent of the existing number of jobs and approximately 18.5 percent of the total acreage. By 2040, this proportion is expected to remain similar (11.9 percent of the population, 13.2 percent of households and 11.8 percent of jobs). Thus, under both current and forecasted future conditions, the AMBAG region represents a relatively small portion of the growth in the cumulative analysis impact area.

Analysis of the cumulative effects of the 2040 MTP/SCS for each environmental issue area is presented at the ends of Sections 4.1 through 4.14.

3.5 Plan Consistency

CEQA Guidelines Section 15125(d) requires an EIR to discuss any inconsistencies between the proposed project and applicable general plans, specific plans and regional plans. This analysis is presented in Section 5.0, MTP Consistency with Other Plans Analysis, as well as in several topical analyses in Section 4.0, including Section 4.3, *Air Quality and Health Impacts/Risks* and Section 4.11, *Land Use*.