

CHAPTER 3

The Sacramento Region in the Year 2040

The first section of this chapter paints the picture of how our region's three key pillars — **People**, **Places**, and **Travel** — will have evolved over the next two decades to successfully meet the anticipated changes and challenges the region will likely face in 2040.

The second section, starting on page 34, lays out the roadmap of practical steps and actions we need to take now and collectively commit to in order to realize a brighter, thriving, and sustainable future.

What is the future
we're planning for?

People, places,
and travel in the
year 2040

People

THE REGION’S ECONOMY AND POPULATION
WILL CONTINUE TO GROW.

By 2040, we estimate the Sacramento region will have added 620,000 people, as well as the jobs and housing to support them. This growth will come on top of what has been strong growth for the past 20 years, exceeding both California and the rest of the nation. Indeed, between 2000 and 2017 only the San Joaquin Valley could match the Sacramento region’s population growth rate within the state.

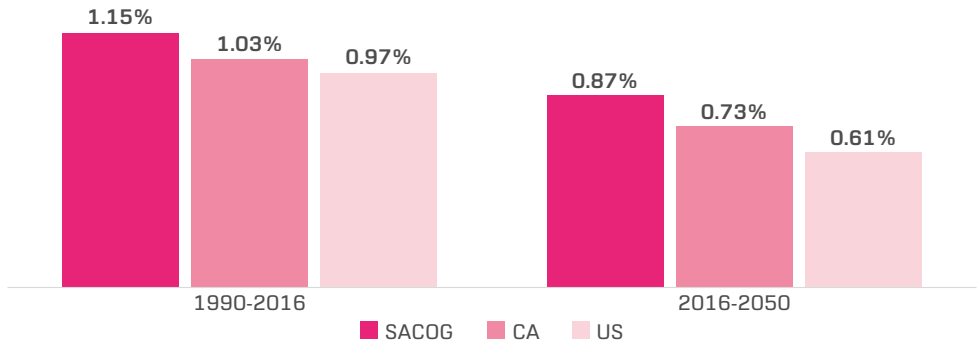
Our region also has above-average worker productivity and higher middle-class earnings than other large metropolitan regions in the nation, which has helped fuel pronounced development over the past few decades.

TABLE 3.1 People, Jobs, and Housing: Totals and Growth

Year	2020 MTP/SCS <i>(Forecast Period 2016-2040)</i>			
	Employees	Population	Households	Housing Units
2016	1,060,751	2,376,311	881,799	921,123
2035	1,279,016	2,903,090	1,100,474	1,144,694
2040	1,330,813	2,996,832	1,136,599	1,181,251

Our region’s projected housing and employment growth reflects changes in the economy and how we grow after the Great Recession. Our region is expected to continue to grow jobs at a faster rate than the state and national averages. However, our growth will look different than what we’ve experienced historically. Like the rest of the nation, it will be a little slower in response to slowing demographic trends. And it will need to be more reflective of the region’s increasing demographic diversity to keep our economic competitiveness.

FIGURE 3.1 Regional, State, and National Growth



People

OUR POPULATION WILL BE OLDER THAN IN 2020.

Our region's population is getting older, along with the rest of the nation. By 2040, 22 percent of the region's population will be over 65. That's 253,000 more over-65-year-olds than today. The aging of our population has implications for demands for transportation, housing, community amenities, as well as the region's economic prosperity. Generally, most seniors are working longer and want to age in place in their own homes and communities. However, transportation choices and needs change for older adults. Safe and accessible transportation options and services are key to older

adults remaining active, avoiding social isolation, and accessing recreation activities, medical care, shopping, and services. Costs are rising for many transportation services, challenges continue in serving suburban and rural areas, and there is growing need for same-day on-demand transportation. As a result, public transit and community transportation providers are exploring and expanding delivery models beyond traditional paratransit and supplementary services to increase the mobility options for older adults and those with disabilities.

WE WILL CONTINUE TO BECOME MORE ETHNICALLY AND RACIALLY DIVERSE.

Our region is one of the most diverse in the nation in terms of race and ethnicity. Today, about 45 percent of our regional population is people of color, and these communities are disproportionately represented in the households that do not earn enough to cover their basic household expenses, including housing, transportation, and child care. Almost half (47 percent) of black families and 42 percent of Hispanic families meet this definition, compared to one-third of all families in the region.

By 2040, people of color will have risen to 51 percent of the population, with most of that growth coming among people who are multiracial (two or more non-Hispanic races) and Hispanic (any race). The multiracial share of the population will grow 60 percent by 2040 (from 4.2 percent in 2016 to 6.7 percent in 2040), and the Hispanic share of the population will grow 14 percent (from 21.7 percent to 24.7 percent).

Chapter 4 includes policies and implementing actions to support access to job training and education, through supportive infrastructure and transportation programs.



People

THIS OLDER, MORE DIVERSE POPULATION WILL HAVE DIFFERENT HOUSING NEEDS AND DESIRES THAN TODAY'S POPULATION.

Our current housing mix includes mostly single-family, large-lot homes [single-family houses at a density between one and eight homes per acre] and is not meeting consumer demand for multifamily housing, “missing middle” homes and smaller homes on smaller lots. The coming demographic changes will only increase this imbalance unless the region adapts to the change in demand. Already there are signs that this is happening, from the popularity of new “micro” apartments in midtown Sacramento, to very small

lot single family developments like Rocklin Trails in Rocklin, to the new subdivisions under construction today that offer accessory dwelling unit options.

Housing permit data from local building departments shows the increased demand for denser housing. In 2017 and 2018, small-lot, single family permits returned to pre-Great Recession levels and multifamily housing permits are now at their highest level of the 21st century.

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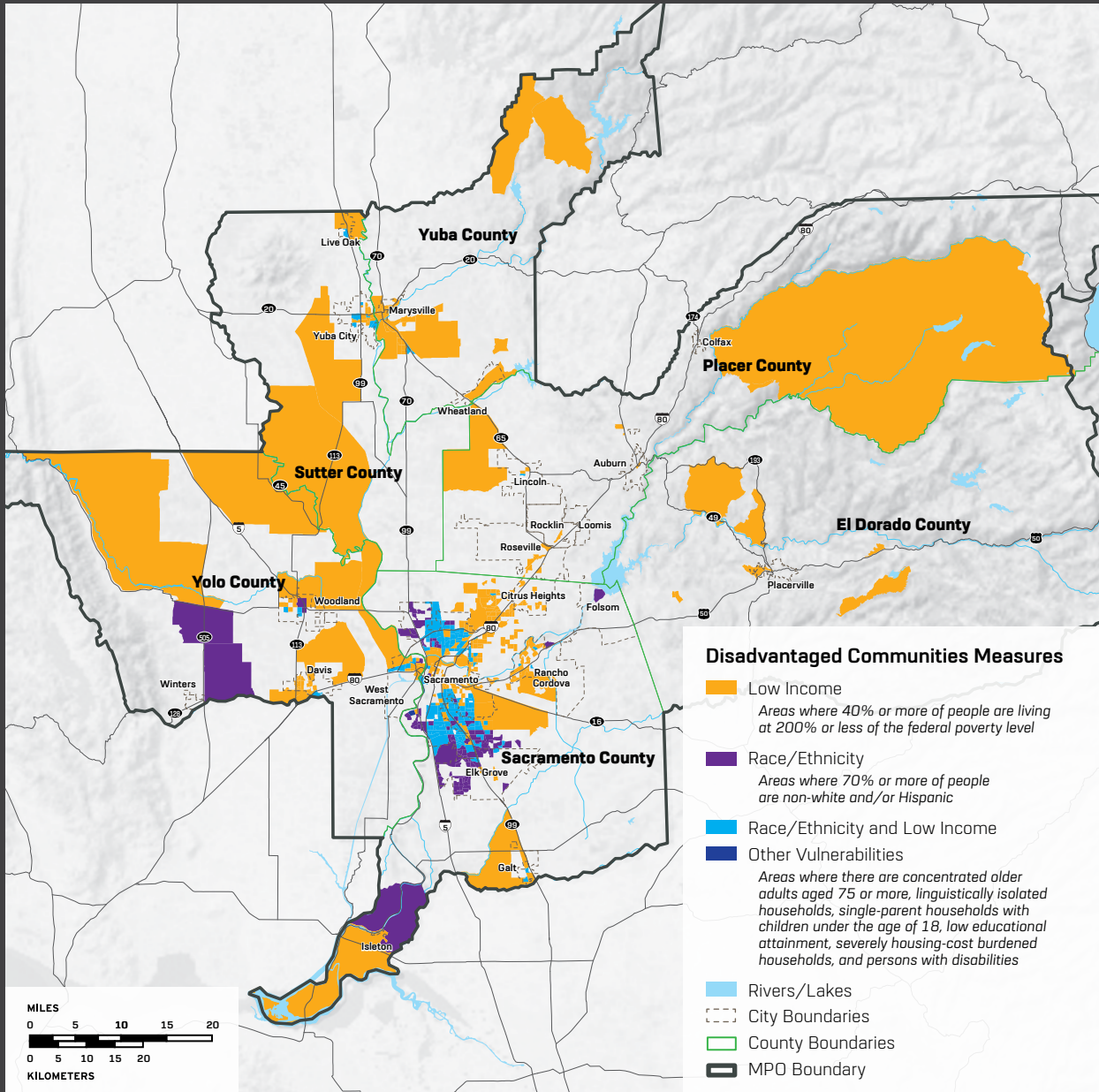
ENVIRONMENTAL JUSTICE

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.

Environmental Justice (EJ) communities are areas that have concentrated populations of one or more of the following criteria: low-income, communities of color, high pollution burden, or other vulnerable communities such as single-parent households, low educational attainment, linguistic isolation, disabled, burdened by excessive housing costs, or senior populations greater than 75 years old. The definition of EJ does not include the entire population of low-income, non-white, high pollution burdened, or vulnerable households in our region. It is the best framework we have based on available data and is a good foundation for future equity work in our region. As noted throughout this document and supported through the policies, it is critical to our future economy that

we address the inequities that EJ communities face. Through the transportation lens, it is important to understand that, on average, residents living in EJ communities walk, bike, and take transit at a higher rate than the rest of the population. How well the existing and future infrastructure supports the transportation needs of these communities is a significant factor in their ability to access jobs, schools, services, as well as impacting their overall health and quality of life.

SACOG is required by law to conduct an environmental justice and Title VI analysis as part of the MTP/SCS, to determine whether the MTP/SCS benefits low-income and communities of color equitably, whether the planned transportation investments have any disproportionate negative effects on EJ populations in the SACOG region, and whether the plan has disparate impacts on the basis of race, color, or national origin. Appendix H seeks to not only fulfill SACOG's legal requirements, but also to understand and compare the benefits and effects of the MTP/SCS for these communities.

FIGURE 3.2 Environmental Justice Areas

People

THE REGION WILL HAVE MORE JOBS, MORE DIVERSITY OF INDUSTRIES, AND LESS RELIANCE ON THE GOVERNMENT SECTOR.

This plan projects 270,000 new jobs by 2040. The 2018 Brookings Institute market assessment notes that strategies and policies that support innovation, workforce and job growth in tradable sectors (jobs that sell products or services outside the region and thus bring new wealth into the region) could strengthen our economy and add additional quality jobs that pay above-average wages. It suggests there are opportunities to accomplish this in the food manufacturing, life sciences, and mobility innovations sectors. The government sector will remain the main employer, but its share of jobs will decline.

Although our region has a strong starting point for economic prosperity and productivity, the Brookings assessment points to challenges the region faces: rapid technological transformation; further global integration; environmental and demographic change; and leadership. These challenges make it essential

to promote equitable opportunity to continue our economic prosperity. As stated previously, like many other metro areas, more than one-third of residents in the Sacramento region struggle to make ends meet. The share of struggling families is disproportionately concentrated in communities of color and those with lower levels of education. The market assessment notes that a region cannot be economically prosperous if it fails to provide access to growth and opportunity for all.

Furthermore, *how* and *where* we grow — the location and shape of employment centers, housing, neighborhoods, and transportation infrastructure — plays an integral role in achieving a prosperous economy. Chapter 4 identifies policies and implementing actions for how development and transportation can support a prosperous future.

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PROSPERITY PLAN

In 2018, the Greater Sacramento Economic Council, Sacramento Metropolitan Chamber of Commerce, Valley Vision, and SACOG formed the Regional Prosperity Partnership to engage the nationally recognized Brookings Institute Metropolitan Policy Program to conduct a market assessment of the region. The findings show that the region can take advantage of changing market, technology, and demographic trends for broad-based economic growth, but to do so must focus on the core drivers and enablers of regional competitiveness and prosperity. In response, the Regional Prosperity Partnership is developing the Prosperity Strategy, a strategic framework to champion a pathway for inclusive economic prosperity.

The Prosperity Strategy translates the long-range vision of this plan into near-term steps to advance regional economic growth, prosperity, and inclusion. The strategy recognizes that maintaining the economic recovery we've experience since the end of the Great Recession will take a renewed focus on the key factors of regional competitiveness, and a shared commitment for targeted, near-term action that responds to the strengths, weaknesses, and vulnerabilities identified in recent regional assessments. To orient around near-term action, the Prosperity Strategy will prioritize near term implementation actions in three market drivers (tradable sectors, innovation, and human capital), and two supporting systems (transportation infrastructure and regional governance).



Places

THE REGION WILL HAVE TO DEVELOP MORE COMPACTLY OVER THE NEXT 20 YEARS.

In order to improve our economy and quality of life, the region needs to develop land more efficiently in the next 20 years compared to the way it developed over the last 60 years. More compact development will help keep agricultural land in production to power our agricultural and food industries; protect our communities from worsening air pollution; conserve water; efficiently deliver public and transportation services; and make it more reliable and affordable for people to get to their daily destinations.

No matter how much money we spend on transportation infrastructure, it will neither reduce congestion nor make travel more reliable in the long run, without a more compact development pattern.

We are required to look at the both the transportation and land use impacts of the forecasted new jobs, homes and people. While the region has adequate room to grow in proposed and adopted local land use plans for the growth we project over the next 20 years, it far exceeds the amount required. Using those local plans as a base, this plan lays out a strategy for coordinating and phasing land development with transportation projects that accommodate growth and enhance quality of life. The results of that coordination will be significant.

By 2040 there will be:

- 500,000 more people living close to major job centers compared to today.
- 18 acres of farmland developed for every 1,000 new residents, compared to historic conversion rates of 242 acres for every 1,000 new residents.
- 490,000 homes and 658,000 jobs close to high-frequency transit service.
- Less traffic congestion per capita even as the region grows by 620,000 more people.

Appendix E includes additional information on plan performance.



Travel

PEOPLE WILL HAVE BETTER ACCESS TO JOBS, MAKE SHORTER TRIPS, AND MORE OPTIONS TO AVOID HEAVY CONGESTION.

An increased emphasis on compact development and better coordination of that development with transportation projects show significant benefits for travel in 2040. An extra 109,500 jobs are forecast to be within a 30-minute drive of people's homes, an increase of 29 percent. And the extra 17,500 jobs forecast to be within a 30-minute transit trip from people's homes is an increase of more than 350 percent. These improvements help to lower the average daily vehicle miles workers will travel from 18 in 2016 to 16.1 in 2040.

That 1.9 mile reduction may not sound significant, but when you multiply that impact by 1.33 million total workers in 2040, and consider that it is within the context of 620,000 more people in the region, the roughly 10 percent reduction in commute distance makes a real difference in people's lives by contributing to a per capita reduction in greenhouse gases emitted by weekday drivers of 19 percent below 2005 levels. That 19 percent reduction comes because of the policies outlined in this plan; if we were to proceed on our current trajectory, we would not meet that state mandated goal.

The plan also forecasts a reduction in daily vehicle miles traveled per capita in heavy congestion, from 1.56 in 2016 to 1.53. As a useful rule of thumb, "heavy congestion" means when average speeds drop by 60 percent or more on a roadway, which you can think of as below 35 mph on a freeway or 20 mph on a local street. This change is notable, not because of the slight reduction in the congestion drivers experience on an average day, but because that minor reduction is happening at the same time the region is growing by 620,000 people. Meeting



the needs of a population nearly 25 percent larger than we have today, while maintaining and even reducing the amount of congestion on our roadways is an important indicator of the region's success.

It is also worth bearing in mind that any one driver's experience of congestion is just that, a moment in time in one location. So if, for example, somebody chooses to live in El Dorado Hills and work in downtown Sacramento starting at 9am, they may not find much comfort in knowing that regionwide, congestion will no longer be growing faster than the region's population. But the growth planned for in non-downtown employment centers, such as Folsom and Roseville, the increase in infill development, and the increase in transportation options that work for commuters including express buses or paid express lanes, will mean many more opportunities in the future to live closer to where you want to work and play and make travel quicker and easier.

Travel

THE REGION WILL HAVE A SAFER TRANSPORTATION SYSTEM THAT'S IN BETTER SHAPE.

Over the last 10 years, an average of 218 people died in collisions on our region's roads and highways. In 2016, 285 people died, the highest number of recorded deaths in our region for the last 10 years and a 21 percent increase from the prior year. The region's 2016 collision fatality rate of 1.3 fatalities per 100 million vehicle miles traveled marked a return to record highs not seen since 2007. This is higher than the 2016 statewide average of 1.1 fatalities per 100 million vehicle miles traveled.

We need to do better. Safety is an issue in urban, suburban, and rural areas of the region and for all travelers – drivers, passengers, bicyclists, and pedestrians. Safety concerns on roadways largely center on intersection crashes and run-off-the-road collisions, but also include narrow shoulders; roadside obstacles; short, tight ramps; and poor lighting and signage. In rural areas, shoulders and guardrails are often lacking along many high-collision locations.

Road safety is a major public health risk, but even minor incidents can affect the reliability of our transportation system. Up to 50 percent of traffic congestion on roadways is due to incidents including collisions, weather, spilled loads, and stalled vehicles. Although crashes are typically less severe on congested roadways, even a small incident can quickly lead to a large amount of traffic delay.

The solutions to increasing the safety of rural roads must be sensitive to community preferences and the type of travel the road sees that are often much different from those in urbanized areas. Many rural residents prefer roads that reflect a more rural setting, that is, without curbs, gutters, and sidewalks. Rural roads

typically don't carry the same diversity or quantity of users – bikes, pedestrians, frequent transit – as urban roadways. However, this is not always true, and collisions, whether between vehicles or vehicles hitting cyclists and pedestrians, often happen at much higher speeds. Finding a balance between preserving rural character and providing adequate infrastructure is essential for keeping our region's rural roadways safe.

The emergence of autonomous vehicle technology will help make our roads safer by 2040 because it will reduce one of the major risks on the road – poor and impaired drivers. And because a well-maintained road network is a safer road network, the region's commitment to fix-it first transportation policies will pay safety dividends. Roadway design, ensuring adequate space for various users, adequate signage and lighting, and measures that increase driver awareness are all critical to improving the safety of our system.

Appendix A includes the transportation project list included in this plan.



Travel

THE REGION WILL HAVE CLEANER AIR.

By 2040, cleaner vehicles, a productive transit system, less reliance on single-occupancy vehicles, and more opportunities to walk and bike, in partnership with improvements in industry and manufacturing, will have greatly reduced the routine “Spare the Air” days of today when air quality is so bad that residents are encouraged to stay indoors.

The more compact land-use pattern and transportation investments included in this plan play an important role in achieving this outcome. On-road emissions [emissions from cars, trucks, buses, motorcycles] account for a significant portion of harmful emissions we find in our air. They make up more than 30 percent of greenhouse gas emission associated with climate change. Today, our air quality violates federal health standards under the Clean Air Act for several pollutants for which the federal government has found direct links to health problems.

Today, thanks largely to improvements in vehicle technology, we are starting to see improvements. In 2018, after 20 years of monitoring, our region demonstrated continued attainment of federal health standards for carbon monoxide, a pollutant that can affect the body’s ability to transport oxygen to the heart and brain and can be particularly concerning for people with certain types of heart disease.



Over the next 20 years, it is critical that we approach expanding our roads and highways with caution – add capacity where congestion exists to avoid excessive vehicle idling but avoid overbuilding roads that would attract even more driving and incentivize development in areas where driving is not the only option. By 2040, tailpipe emissions of air pollutants that contribute to elevated amounts of ground level ozone – a pollutant that can trigger a variety of health problems, particularly for children, the elderly, and people who have lung diseases such as asthma – will have reduced by nearly 40 tons per day [a 70 percent reduction in daily emissions]. For more information on the Clean Air Act and our region’s plan to tackle our air quality challenges, see [Appendix I: Air Quality Conformity Analysis](#).



What will we have
done to get to our
brighter future?

People

TO ENSURE BETTER OPPORTUNITIES FOR WORKERS, WE WILL SUPPORT GROWTH IN THESE TRADABLE INDUSTRIES — AGRICULTURE, FOOD, MANUFACTURING, LIFE SCIENCES, AND INNOVATIVE MOBILITY.

The Sacramento's region's economy historically has been dominated by a few sectors—local, state, and federal government employment has accounted for roughly a quarter of the region's jobs, with education, health, and professional services also serving as major employment sectors. With an additional 270,000 new jobs projected in the region, an increasing number and share of residents are expected to work in educational and health services, two industries that have experienced recent growth. The region is also expected to add a significant amount of employment in professional and business services, as well as construction. The share of employment in government — which will remain the region's largest sector — is expected to decline by 2040, as is the share of retail and manufacturing.

Although our economy has strong projected job growth, the region needs to work to diversify its economic base across a larger set of industries and occupations to help realize more broad-based economic growth. The recent Brookings market assessment notes that strategies and policies that support innovation, workforce and job growth in tradable sectors [jobs that sell products or services outside the region and thus bring new wealth into the region] could strengthen our economy and add additional quality jobs that pay above-average wages. One such potential opportunity to translate regional strengths into quality job growth exists at the intersection of agriculture, food, and manufacturing. Another is in life sciences, while a third stems from new industries being created through

innovative mobility. These industries, however, are still just a small part of the overall economy. The region will also need to expand employment opportunities in major employment sectors in order to realize the job growth we project. Two large sectors that might see increased job growth are 1) services connected to state government planning in areas like climate change, transportation, and health care, and 2) state headquarters for health care activities. The Prosperity Strategy will develop strategies and prioritize near-term implementation actions to support the tradable and inclusive economic opportunities in our region.



People

WE WILL ENSURE EVERYONE BENEFITS FROM THE EXPANDED RANGE OF TRAVEL OPTIONS.

As we plan for the growth and future needs of our region, we need to make sure the benefits are available to all segments of society. If we don't prioritize equity in our investments and decision-making, we will shortchange ourselves economically as a region by not maximizing the potential of all our communities and residents.

The most transformative innovations are the ones that can scale to a broader market. A good example is the electrification of transportation. If this technology is to have the significant impact it promises in reducing greenhouse gas emissions — a major state goal that this plan must meet — it needs to be accessible to a wider market.

A new Clean Cars 4 All program, administered by the Sacramento Metropolitan Air Quality Management District using California Climate Investments funding, does just this. The program offers two options to low-income people who own cars that are 15 or more years old. The "Scrap and Replace" option gives people who scrap their old car \$9,500 towards a new or near-new zero emission vehicle. The "Scrap and Forget" program gives people a Visa card loaded with \$7,500 in credits that can be used for a wide variety of transportation options, such as on-demand micro-transit, car and bike-share programs, Uber and Lyft, or public transit.

This program not only improves air quality, it promotes economic opportunity and resilience for low-income people. At the program's soft launch in August 2019 (with full deployment in early 2020), Victoria Robertson, the program's first participant, talked about the economic insecurity that came with owning an unreliable older car. Victoria depends on the car to get her to work and uses it to supplement her income by driving for a food delivery service on the weekends.

We need to push the private sector to innovate where they can both make a profit and design solutions that work for more than just the wealthiest populations. We need to work together to ask ourselves where innovation can make the biggest impact.



My AC went out, the only window that really works is the front passenger one, it's got a small oil leak, and it's started to overheat. I worried about it and prayed on it. What would happen if it broke down? My prayers were surely answered when I heard there was a program that would give me \$9,500 to replace my car with a new or near-new zero electric vehicle. A reliable car is a big game-changer in my life.

VICTORIA ROBERTSON
First participant in the new Clean Cars 4 All program



Places

THE PUBLIC AND PRIVATE SECTORS WILL WORK IN PARTNERSHIP TO BUILD MORE TYPES OF HOUSING FOR TODAY’S AND TOMORROW’S HOUSEHOLDS.

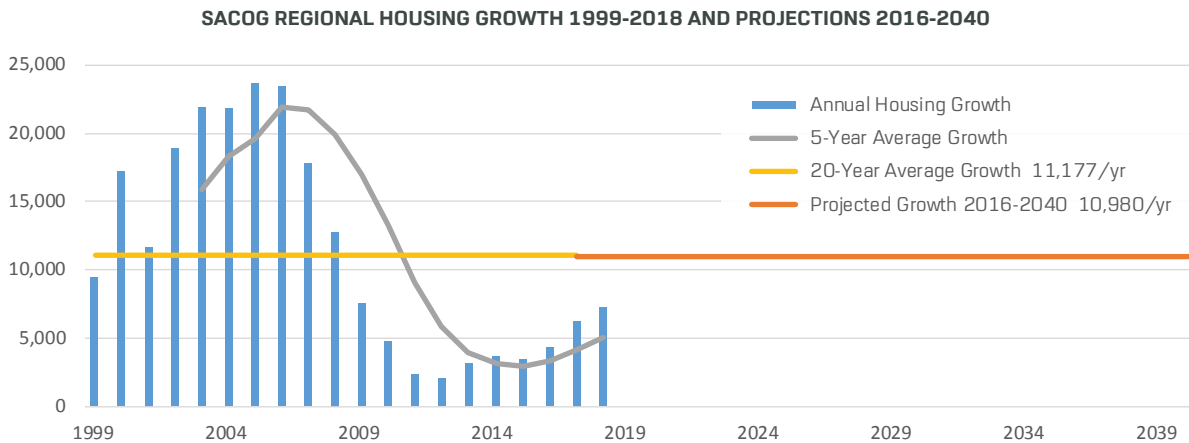
To meet the housing demands of a growing population and economy, the region will need to produce, on average, 11,000 new homes annually — roughly a doubling of the region’s average annual housing construction rate since the end of the Great Recession. While we are planning for robust housing and employment growth, it will require partnership from the public and private sectors to build it. It took almost a decade for the region’s economy to recover from the Great Recession — job growth is up, but housing construction is lagging.

How will 2040 be different from today? First, we assume we will be able to build enough housing to keep up with population growth, reversing the disturbing trend of under-producing housing we saw in the last decade. Second, this plan assumes a reversal of historic building trends: the majority of new homes in the future will be

built as either attached homes or single-family homes on smaller lots. This mix of housing products is critical for housing choice, affordability, walkability, transportation options, and preserving open space and agricultural land.

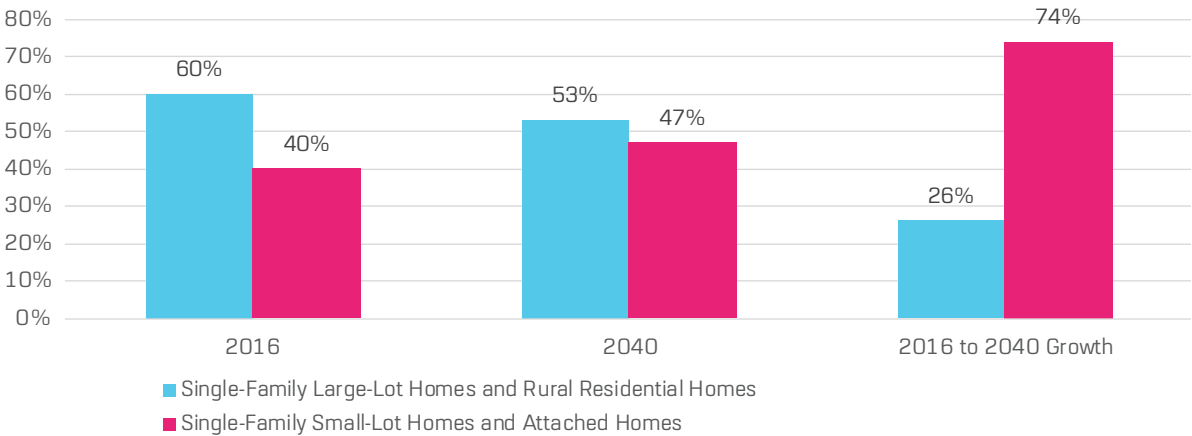
Where housing is constructed also has implications for air quality, natural resources, quality of life, and local government budgets. As housing production doubles, it will be critical to maintain a balance of infill and greenfield growth over time to avoid an uncoordinated development pattern that can create more traffic congestion, harmful air pollution from vehicles, and additional cost for local governments that provide services and maintain infrastructure. Furthermore, for over a decade, consumers have been demanding a wider range of housing types — whether for lifestyle, budget, or both.

FIGURE 3.3 Projected Annual Housing Construction



Places

FIGURE 3.4 Housing Types in 2016 and 2040



BUILDING BLOCK

THE SACRAMENTO REGION BLUEPRINT

Many of the region’s developing communities were planned for in the late 1990s and early 2000s. At that time, the region was experiencing unprecedented housing growth. However, a lack of coordination and phasing between the region’s 22 cities and six counties led to significantly worsening traffic and air quality.

This led the cities and counties of the region to voluntarily and collaboratively prepare a plan for how best to plan for and manage future growth. Developed in 2002-2004, the Regional Blueprint outlined a growth vision for the region based on seven smart growth principles:

- Use existing assets
- Compact development
- Mix uses
- Transportation choice
- Housing choice
- Preserve natural resources
- Quality design

Using these principles, the Blueprint envisions a development footprint that provides plenty of capacity for a growing region while conserving farmland and natural resources, improving air quality, and raising the overall quality of life. While the Blueprint was a 50-year vision looking out to 2050, the Great Recession and resulting changes to the development and building industry have slowed the growth trajectory the region was on 20 years ago. The growth assumptions and development footprint of the Blueprint are likely to take a much longer time to achieve; however, it still provides an important framework for the region’s long-term growth. [Appendix D: Land Use Forecast Documentation](#) includes more information on the Sacramento Region Blueprint, including a map of the Blueprint growth footprint.

Places

REGIONAL GROWTH WILL BE FOCUSED ON EXISTING CITIES AND SUBURBS.

This regional growth strategy is built up from local land use plans. Nearly two-thirds of the region's new housing and 85 percent of its job growth is expected to be in Centers and Corridors, and Established Communities (i.e., existing suburbs, downtowns, commercial corridors, and the buildout of today's existing suburbs). The remaining third of new housing and 15 percent of job growth is expected to be in more than two-dozen new Developing Communities (i.e., greenfield areas), mostly located at the edge of established communities and in scattered rural residential areas. With more homes and jobs in existing communities, how will the region look different in 2040? Today's new suburbs will build out to become tomorrow's mature neighborhoods. New suburban development will occur more slowly in the next 20 years compared to the last 40 years. And, today's aging suburban commercial corridors and old downtowns will transform with new business uses, homes, and amenities.

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COMMUNITY TYPE FRAMEWORK

This plan uses a Community Type Framework to describe the land use forecast of 2040. Local land use plans (adopted and proposed general plans, specific plans, master plans, corridor plans, etc.) were translated into one of five Community Types based on the location and development pattern of the area. As housing and job growth occurs over time, specific geographic areas evolve, such as from lands not identified for development, to developing communities; developing communities to established communities; and established communities to centers and corridors. **FIGURE 3.5** illustrates these Community Types.

CENTER AND CORRIDOR COMMUNITIES

Land uses in Center and Corridor Communities are typically denser and more mixed than surrounding land uses. Center and Corridor Communities are identified in local land use plans as historic downtowns, main streets, commercial corridors, rail station areas, central business districts, town centers, or other high-density destinations. They typically have more compact development patterns, a greater mix of uses, and a wider variety of transportation infrastructure compared to the rest of the region. Some have frequent transit service, either bus or rail, and all have pedestrian and bicycling infrastructure that is more supportive of walking and bicycling than other Community Types.

ESTABLISHED COMMUNITIES

Established Communities are typically the areas adjacent to, or surrounding, Center and Corridor Communities. Many are characterized as "first tier," "inner ring," or mature suburban communities. Some are today's newest subdivisions and suburbs. Local land use plans aim to maintain the existing character and land use pattern in these areas. Land uses in Established Communities are typically made up of existing low- to medium-density residential neighborhoods, office and industrial parks, or commercial strip centers. Depending on the density of existing land uses, some Established Communities have bus service; others may have

commuter bus service or very little service. The majority of the region’s roads are in Established Communities.

DEVELOPING COMMUNITIES

Developing Communities are typically, though not always, situated on vacant land at the edge of existing urban or suburban development; they are the next increment of urban expansion. Developing Communities are identified in local plans as special plan areas, specific plans, or master plans and may be residential-only, employment-only, or a mix of residential and employment uses. Transportation options in Developing Communities often depend, to a great extent, on the timing of development. Bus service, for example, may be infrequent or unavailable today, but may be available every 30 minutes or less once a community builds out. Walking and bicycling environments vary widely, though many Developing Communities are designed with dedicated pedestrian and bicycle trails.

RURAL RESIDENTIAL COMMUNITIES

Rural Residential Communities are typically located outside of urbanized areas and designated in local

land use plans for rural residential development. Rural Residential Communities are predominantly residential with some small-scale hobby or commercial farming. Travel occurs almost exclusively by automobile, and transit service is minimal or nonexistent.

NATURAL RESOURCE LANDS (Lands Not Identified for Development during the MTP/SCS Planning Period)

These areas of the region are not expected to develop during the planning period. These areas are dominated by commercial agriculture, forestry, resource conservation, mining, flood protection, or a combination of these uses. Some of these areas have long-term plans and policies to preserve or maintain the existing “non-urban” uses; however, some are covered by adopted or proposed plans that allow urban development and/or are identified in the Blueprint Vision for future growth.

More information on the land use forecast is included in [Appendices C and D](#).



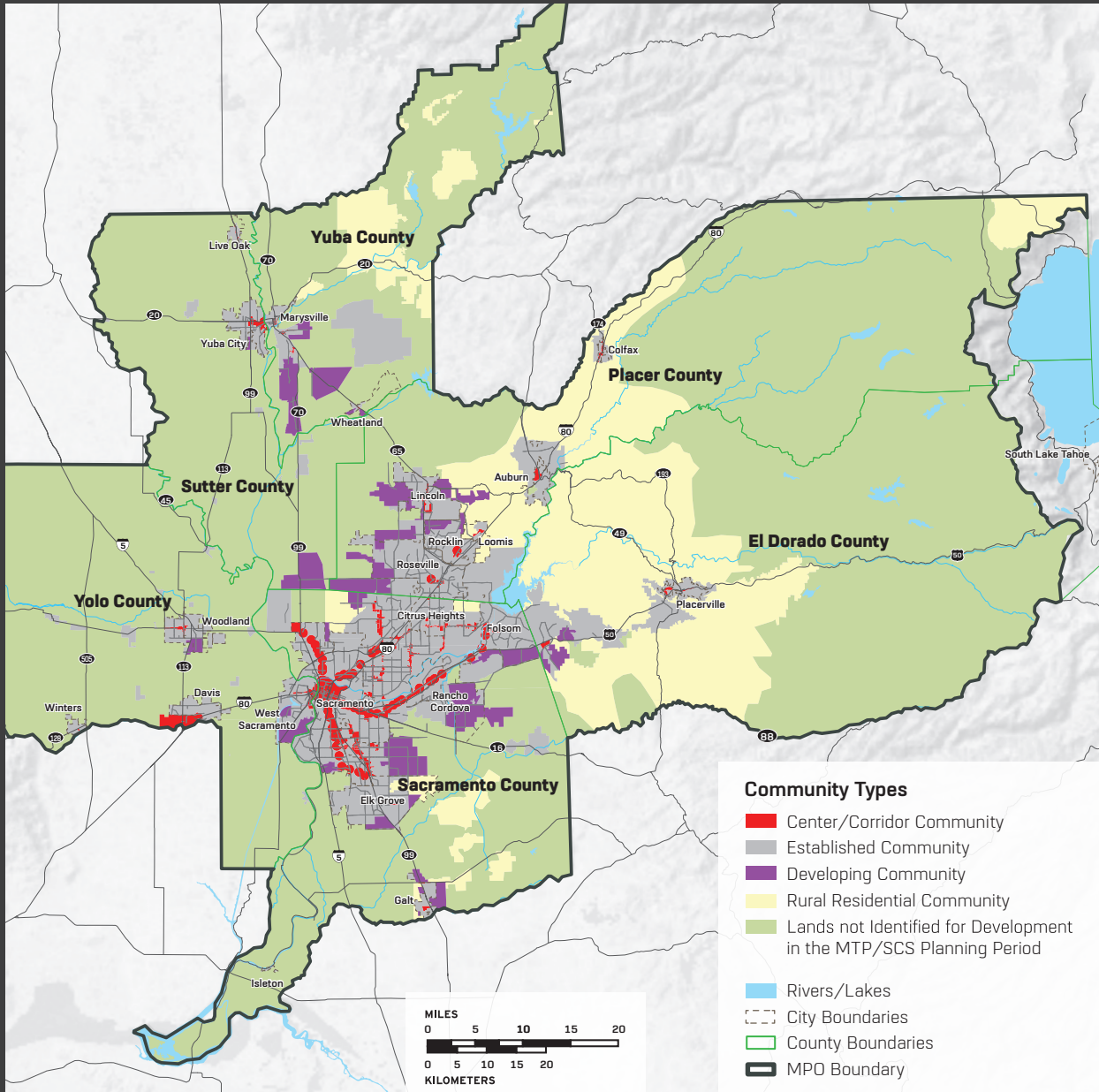
FIGURE 3.5 Community Types

TABLE 3.2 Summary of Expected Housing and Employment Growth by Community Type

	2016		2016 - 2040		2040	
Community Type	Dwelling Units	Employees	Dwelling Units	Employees	Dwelling Units	Employees
Center and Corridor Communities	113,880	370,890	86,661	82,850	200,541	453,739
Established Communities	712,012	645,326	81,365	146,053	793,377	791,379
Developing Communities	20,793	12,339	89,313	39,754	110,106	52,093
Rural Residential Communities	74,438	32,196	2,789	1,405	77,227	33,601
Lands Not Identified for Development in the MTP/SCS Planning Period	n/a	n/a	n/a	n/a	n/a	n/a
Region Total	921,123	1,060,751	260,128	270,062	1,181,251	1,330,813

Source: SACOG Proposed MTP/SCS Land Use Forecast for 2040, June 2019.

Appendices C and D include more information on the land use forecast.

WE WILL HAVE RE-IMAGINED AND REVITALIZED THE REGION’S COMMERCIAL CORRIDORS.

Changes in the retail sector of the economy, in consumer housing preferences, and the nature of work, mean the time is right to re-envision and reinvent former auto and chore-oriented arterials into vibrant places where people live, work, and play. These Centers and Corridors are ripe for the new housing that’s needed by current and future residents and for new commercial and employment opportunities. This reinvention is an opportunity to rethink how people

travel to, from, and within Centers and Corridors.

In 2040, over 171,000 new residents will live in the region’s commercial corridors and downtowns. This is a 67 percent increase from the number of people living in these areas in 2016. This means we need to encourage and facilitate the construction of 87,000 more homes and the growth of 83,000 more jobs in the region’s commercial corridors and downtowns.

Places

WE WILL HAVE INVESTED IN RURAL ECONOMIES AND SMALLER TOWNS AND CONNECTED OUR VITAL NATURAL RESOURCE ECONOMY TO ITS URBAN MARKETS.

Even as our region adds 620,000 more people, it will still be a largely rural place: less than one percent of the region's nearly two million acres of agricultural land is impacted by the future development pattern. Seventy-five percent of the fresh water that flows into the Sacramento-San Joaquin Delta originates in the snow-capped peaks of the Sierra Nevada and flows downhill to irrigate croplands and a thirsty urban population. This rural land base is vital to the region's agricultural economy, health, and quality of life. The land not only contributes directly to the region's economy — agriculture is one of the region's only tradable industries — it also supports the region's economy by providing water supply and flood protection, recreation and tourism, habitat conservation, and provides aggregate and timber for development.

While some of the region's undeveloped rural lands are identified in local plans for urban development at some point in the future, the vast majority of our

rural lands play an important role in the economy. For example, the specialty crop industry (fruits, vegetables, etc.) contributes an average of \$1.2 billion annually to the local economy. Most agricultural jobs — processing, manufacturing, distribution — are located in cities and urban areas. The agricultural sector could generate more money in the local economy with value-added processing — off-farm processing and manufacturing of food and fiber products. This plan aims to support the rural economy by strategically investing in transportation infrastructure to serve the farm-to-market activity of the natural resource economy. Furthermore, most of those jobs will be located in cities and areas with urban infrastructure.

For more detailed information on the MTP/SCS growth pattern see [Appendix C: Land Use Forecast](#).

— Continued on page 45



Places

BUILDING BLOCK

MOVING FREIGHT

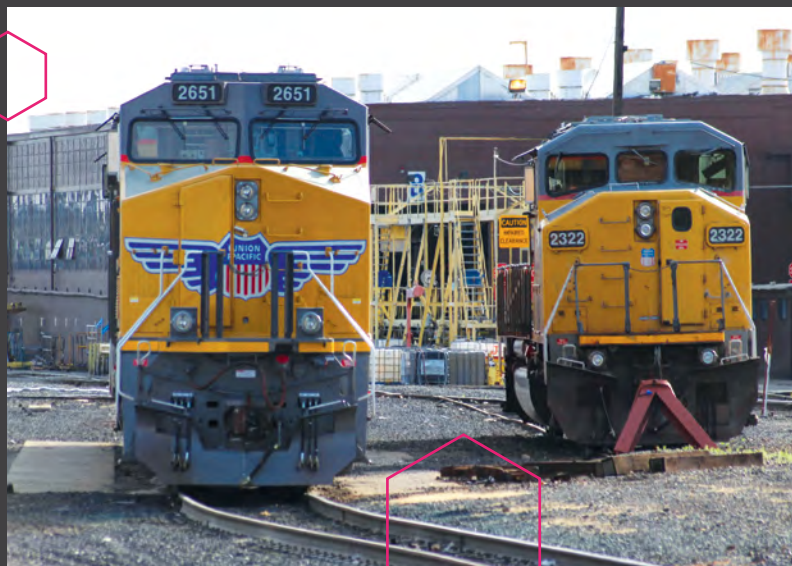
Our region is a crossroads for freight moving into, out of, and around California. Around \$400 billion in goods annually moves through the region over the Sierra Nevada along the I-80 corridor or out of San Joaquin County along the I-5 or SR-99 corridors. While most of the more than 300 million tons of freight traveling through the region is carried by trucks, some travels by rail, air, and ship.

Four freight railroad systems operate in the Sacramento region. Union Pacific Railroad (UPRR) is the largest Class I freight railroad in the U.S. and operates over 3,000 miles of track in California. UPRR's J. R. Davis Yard, located in Roseville, is the largest railway yard on the West Coast. Approximately 98 percent of all UPRR traffic in Northern California is moved through this yard. Other railways include the BNSF Railway, Sierra Northern Railway and the California Northern Railroad.

Sacramento International Airport (SMF) and Mather Airport are among the top ten air cargo carrying airports in the state. FedEx operates wide-body and feeder aircraft through SMF and United Parcel Service (UPS) operates a 20,000-square-foot facility out of Mather Airport. [Appendix M](#) includes more information on Airport Land Use Compatibility Plans.

The Port of West Sacramento is an inland port located a few miles west of downtown Sacramento near US-50 in Yolo County. The Sacramento Deep Water Ship Channel runs 43 miles from Antioch (in Contra Costa County) near the mouth of the Sacramento River, ending at the harbor of West Sacramento. The Port handles a variety of cargo moving into and out of the region including rice, fertilizer, lumber, cement, minerals/ore, metals, wind turbines, machinery, generators, and steel.

The region's interstate system is critical for supporting freight movement whether it's moving through or starting or ending its journey in the region. This plan invests more than \$8 billion in highway and interchange projects to improve operations and reliability for both commuters, through-travel, and the movement of goods. Additionally, as the region looks to grow its multibillion-dollar agricultural economy, we recognize that growth depends on maintaining and investing in our rural roads and highways. The policies and actions described in Chapter 4 outline strategies and priorities for supporting agricultural and rural economies throughout the region.



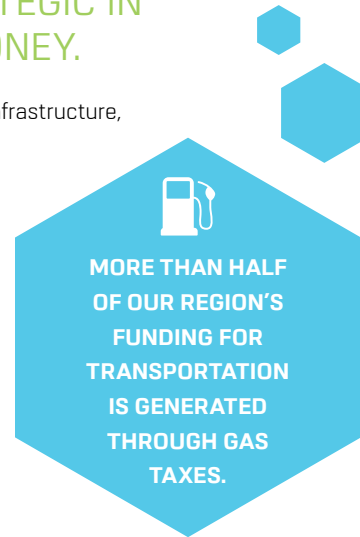
Travel

TO SUPPORT THE REGION'S GROWTH, WE WILL INVEST \$35 BILLION IN OUR TRANSPORTATION SYSTEM IN THE NEXT 20 YEARS. BUT WE NEED TO BE STRATEGIC IN HOW WE SPEND OUR TRANSPORTATION MONEY.

The MTP/SCS forecasts investments of nearly \$35 billion for transportation infrastructure, transit service, programs, and operations over the next two decades. However, funding for transportation faces serious challenges in the coming years.

Gas taxes, both state and federal, are primary sources of funding for transportation investments, accounting for about half of all the funding available to build, maintain, and operate transportation infrastructure and services in the Sacramento region. However, improvements in vehicle fuel efficiency, and increases in electric and hybrid vehicles, are already reducing the demand outlook for gasoline and diesel. According to the California Energy Commission, consumption of gasoline is likely to decrease by one to three percent annually between 2018 and 2030.

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BUILDING BLOCK

WHAT COMES AFTER THE FUEL TAX?

Fuel taxes have been the primary source of funding for transportation for the better part of the last century. However, advances in vehicle technology have made huge strides in improving fuel efficiency or removing fuel from the equation entirely. As fuel consumption decreases, so do the revenues it generates to pay for transportation infrastructure. At the same time, the demands on our roadways continue to increase.

The federal gas tax was last raised in the 1990s and has not kept up with increases in construction prices for over a quarter century. Since 2008, the Federal Highway Trust Fund and Mass Transit Account, which

both receive funding from the federal 18.4 cent excise tax on fuel, have required annual infusions of general fund money to maintain solvency. In just the last decade, the accounts have received more than \$140 billion in transfers from the general fund to keep federal dollars flowing to transportation projects around the country. Even with infusions from the general fund, federal funding for transportation makes up a decreasing share of state and local transportation budgets, putting a greater burden on states and local communities to address their transportation needs.

In California, the Road Repair and Accountability Act of

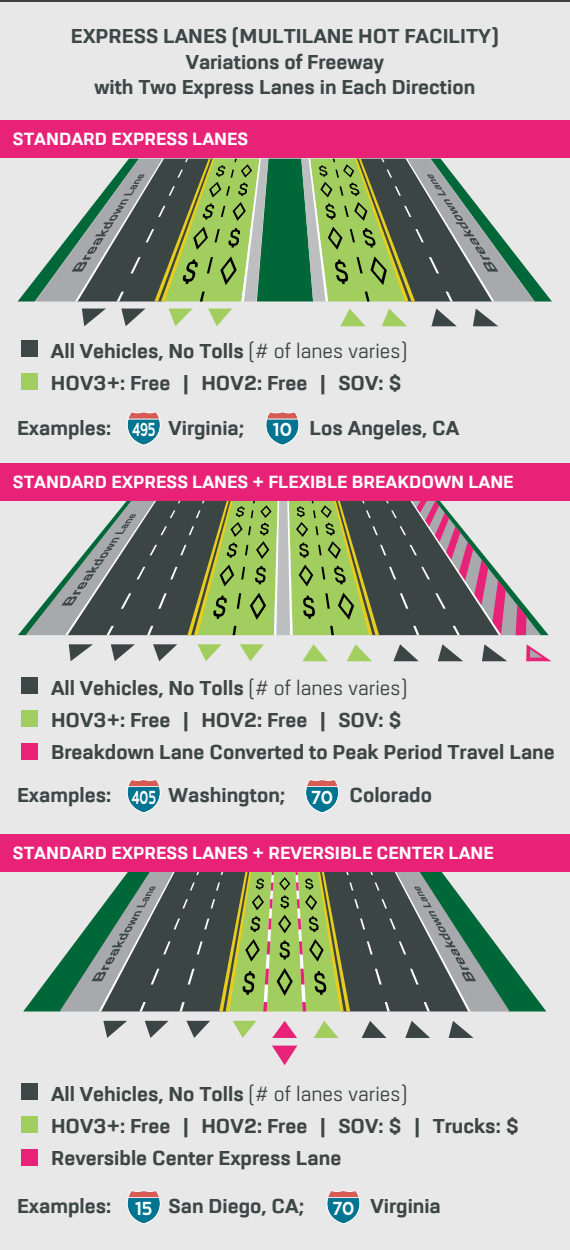
2017, also known as SB 1, increased the state’s excise tax on diesel and gasoline and created additional registration fees, including an additional fee for electric vehicles, to help pay for maintaining our roads and highways. This funding provided a much-needed infusion into our aging transportation infrastructure. However, even with the new revenues, we’re still falling short of our overall maintenance needs. In just the next 10 years in the Sacramento region, we’re facing an annual funding shortfall of several hundred million dollars to pay for a backlog of repairs to our roadways, sidewalks, bike lanes, vital support infrastructure, and transit vehicles and infrastructure.

We must find a more sustainable source of funding for transportation that reflects the growing demand on our system and is not dependent on fuel consumption. The MTP/SCS identifies two strategies that maintain the user pays concept, which places responsibility on the drivers that use the system to pay their fair share in contributing to its upkeep.

EXPRESS LANES

Express Lanes provide a smart traffic management system that allow users to pay a toll to enter a managed lane. Express Lanes use similar strategies to High Occupancy Vehicle (HOV) lanes, but also allow single occupancy and commercial vehicles to access the lanes to improve congestion and overall system reliability. This type of express lanes is frequently referred to as High-Occupancy Toll (HOT) lanes. Tolls can change based on real-time demand for a road and offer a reward system for carpooling or taking transit by allowing discounted or free entry. Single occupancy drivers are able to buy their way into the facility in exchange for a faster and more reliable trip. Express Lanes can manage congestion more effectively than a standard “freeway” facility by adjusting pricing, vehicle occupancy requirements, and number of express lanes and free lanes based on time of day congestion.

FIGURE 3.6 Cross Section of Common Express Lane Configurations



The express lanes can also generate a direct revenue source to finance construction costs, fund roadway maintenance, enforcement, and potentially, improved transit service along a corridor. Our region remains one of the last major metropolitan areas in the country without any form of tolling or express lane network.

FIGURE 3.6 provides a simple illustration of how these types of facilities look in other parts of the country.

MILEAGE-BASED USER FEES (PAYGO)

A mileage-based user fee, or PayGo, system, charges a fee based on how much a person drives on the roads. In its simplest form, the type of fee would use a cents per mile charge. A basic per-mile charge can be adjusted to account for a variety of conditions including time of day, congestion, and location. Most importantly, a PayGo

system can serve as a long-term replacement for a fuel tax by providing a fair and sustainable way to pay for wear and tear on roadways, and a means for funding future maintenance and transportation needs. Much work is still needed to better understand how best to implement this type of system, address concerns about impacts to family budgets, and low-income and rural equity. The MTP/SCS calls for the region to migrate to this type of system in roughly the next decade, but doing so will require leadership on near-term actions to address remaining questions and concerns. Chapter 4 outlines actions to put our region in a place to drive a conversation about how this type of mechanism might be deployed throughout the state in a way that benefits drivers and infrastructure.

MAINTAINING OUR TRANSPORTATION SYSTEM IS CRITICAL TO OUR SUCCESS.

In 2017, California instituted State Senate Bill 1 (SB 1) providing more than \$100 million annually to the region in a much-needed influx of funding to help fix and maintain the state's road, highway, and transit systems. This revenue patch was critical but does not fully address the long-term challenge of finding a replacement for fuel-based taxes. This leaves cities, counties, transit operators, and the state facing an ever-increasing gap between available funds and the cost to keep transportation infrastructure in a state of good repair.

In just the last decade, our local road conditions have declined significantly, contributing each year to a growing backlog of maintenance projects. Between 2008 and today, our roadway conditions have dropped from an average pavement condition index score of 70 to a

score closer to 60. Pavement Condition Index is a simple way to monitor the condition of the surface of roads and identify maintenance and rehabilitation needs. A pavement score of 70 or above generally means that a road is in good condition and requires routine maintenance and patching. Scores in the 60s are signs that road conditions are deteriorating at an increasing pace and at risk of failing, resulting in much more expensive repairs if steps are not taken to intervene.

In addition to the more expensive repairs required as roads deteriorate into worse and worse conditions, poor road quality has direct implications for the region's residents, commercial drivers, and tourists including wear and tear on vehicles and reduced miles per gallon. Major reconstruction projects also cause more disruption

Travel

to the traveling public than routine maintenance projects.

The infusion of California's SB 1 funding will help cities and counties curtail further deterioration of our roadways, at least in the short term, but falls short of helping us climb out of the hole we've accumulated over the past decades. To bring our roads to a state of good repair in the next decade, would require nearly \$900 million annually, a far cry from the \$350 to \$400 million we're spending today.

Our transit system is facing a similar crisis. In just the next five years, roughly half of our region's more than 500 buses are due for replacement. Nearly 60 percent of the light rail vehicles still in operation are over 25 years old and in need of replacements or significant refurbishing. The cost of replacing all these vehicles likely exceeds \$400 million.

Presenting an additional challenge for transit operators is California's Innovative Clean Transit regulation, which sets out to transition the statewide fleet of buses to electric, hydrogen, or other zero-emission technologies by 2040. Beginning in 2029, all new transit vehicle purchases

will be zero-emission, but transit agencies are already beginning the transition. The implications of this regulation are significant. At full deployment, a statewide zero-emission transit fleet stands to reduce greenhouse gas emissions by 19 million metric tons between 2020 and 2050 – the equivalent of taking 4 million cars off the road. However, this shift comes with a price. At a premium of 30 to 40 percent more than a typical bus today, zero-emission buses are not cheap. While prices are already starting to come down as technology improves and supply increases, these vehicles will require a significant investment by transit operators and local governments around the state.

The 2020 MTP/SCS identifies long-term funding strategies including mileage-based user fees and tolling to help make up much of the gap between our region's needs and current sources of revenue. Already, cities and counties are looking to local option sales taxes, loans backed by future SB 1 funding, or allocations from general funds as potential sources of funding to supplement transportation budgets.

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BUILDING BLOCK

PAYING FOR TRANSPORTATION

Federal law requires that the transportation investments planned in the MTP/SCS are financially constrained by a reasonable forecast of future revenues. To that end, SACOG developed a set of revenue projections for the MTP/SCS that consider trends in the economy, policy and regulations, fuel price and consumption, and development activity. For the 2020 MTP/SCS we are planning for \$34.9 billion over the next 20 years.

The Sacramento region gets transportation funding from a variety of federal, state, and local sources. Fuel taxes make up over half of all funding for transportation in the region today. Other revenues are generated through transit fares, dedicated sales tax programs, developer fees, and other local sources as summarized in **TABLE 3.3**.

Many agencies share responsibility for determining how this money is spent, but funding for transportation is often restricted to certain uses. About three-quarters of all the funding forecast in the plan is committed to

specific purposes or projects such as transit capital and operations, road or highway capital improvements, or system maintenance and operations. These limitations may be the result of federal or state policy, developer agreements, or voter approved initiatives. SACOG has some discretion over about six percent of the total budget that comes from a combination of federal and state sources. These more discretionary funds are an important part of how the region can further the policy objectives of the MTP/SCS. However, because the funding available to SACOG represents a small share of the total plan budget, implementing the plan will take the collective efforts of many agencies. **TABLE 3.3** summarizes the major sources of funding supporting investments in the MTP/SCS. More details about the revenue forecast and specific funding sources in the plan is available in **Appendix B: Revenue Forecast**. Chapter 4 provides a discussion on how the region intends to spend our transportation dollars over the next two decades.

TABLE 3.3 Summary of MTP/SCS Revenue Sources

Revenue Source	Current year (2020) Dollars*
FEDERAL FTA Programs for Transit Capital, STP/CMAQ, Highway Bridge Program	\$4.3 Billion
STATE SHOPP, Cap and Trade, STA, High Speed Rail, STIP**, ATP	\$8.7 Billion
LOCAL Sales taxes, fuel tax subventions, future variable mileage fees and tolls, development impact fees	\$21.9 Billion
Total	\$34.9 Billion

* The dollar figures described throughout the plan are expressed in current year dollars (the cost of a project or amount of revenue as represented by the value of a dollar in today's economy). Appendices A and B provide these costs and revenues in both current year and year of expenditure dollars. Year of expenditure dollars account for inflation and represent the value of a dollar in the future. For example, a project costing \$1 million today will cost more in the future as the result of inflation. Both the revenue forecast for this plan and the estimated costs of the transportation investments account for this inflation.

** Under state law, SACOG receives a share of Regional Improvement Program (RIP) funds through the State Transportation Improvement Program (STIP) every two years. During each two-year cycle, the California Transportation Commission provides SACOG with a fund estimate for four years' worth of funding comprised of both state and federal fund sources that contribute to the program. Caltrans administers its own share of STIP funds through the Interregional Transportation Improvement Program (ITIP). The MTP/SCS incorporates the funding estimates and projects included in the RIP and ITIP programs as part of the revenue and expenditure projections for the first four years of the plan.

BUILDING BLOCK

HIGH FREQUENCY TRANSIT AREAS

The MTP/SCS provides increased transit coverage across the region but prioritizes corridors and station areas with land uses that support productive transit services. Many of these higher density and higher demand corridors are assumed to have 15-minute or less service by 2040. Providing high-frequency service of 15 minutes or better in areas with more compact and mixed uses allows the MTP/SCS to provide cost-effective and productive transit service.

High Frequency Transit Areas (HFTAs) are areas of the region within one-half mile of a major transit stop (existing or planned light rail, streetcar, or train station) or an existing or planned high-quality transit corridor included in the MTP/SCS. A high-quality transit corridor is a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. SACOG uses this definition of HFTAs because it coincides with the

definition of Transit Priority Projects in SB 375. Under SB 375, Transit Priority Projects are eligible for streamlined environmental review. See [Appendix D: Land Use Documentation](#) for more information on Transit Priority Projects, HFTA's, and environmental review streamlining.

High Frequency Transit Areas in the MTP/SCS are different from Transit Priority Areas that are also available for some environmental streamlining or exemption under Senate Bill 743. The HFTAs in [FIGURE 3.7](#) are representative of the transit in 2040 and have the potential to change with every quadrennial update of the MTP/SCS. However, the TPAs, as defined in SB 743, have the potential to change on a more frequent basis. The TPA map shown in [FIGURE 3.8](#) is illustrative of the current TPAs in the region as of fall 2019. [Appendix D](#) includes more information on the CEQA streamlining options available to projects consistent with the MTP/SCS and their transit service requirements.

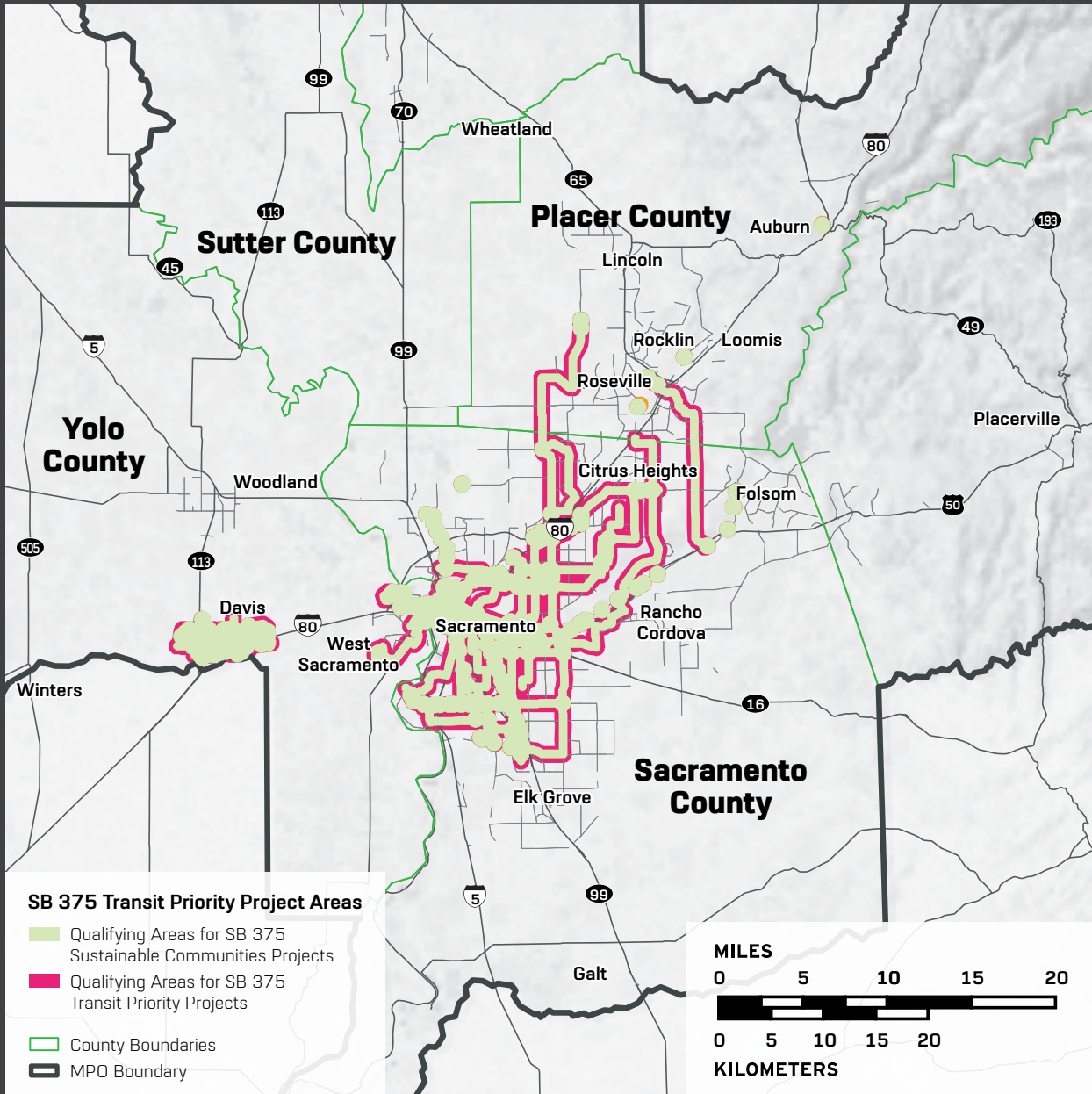
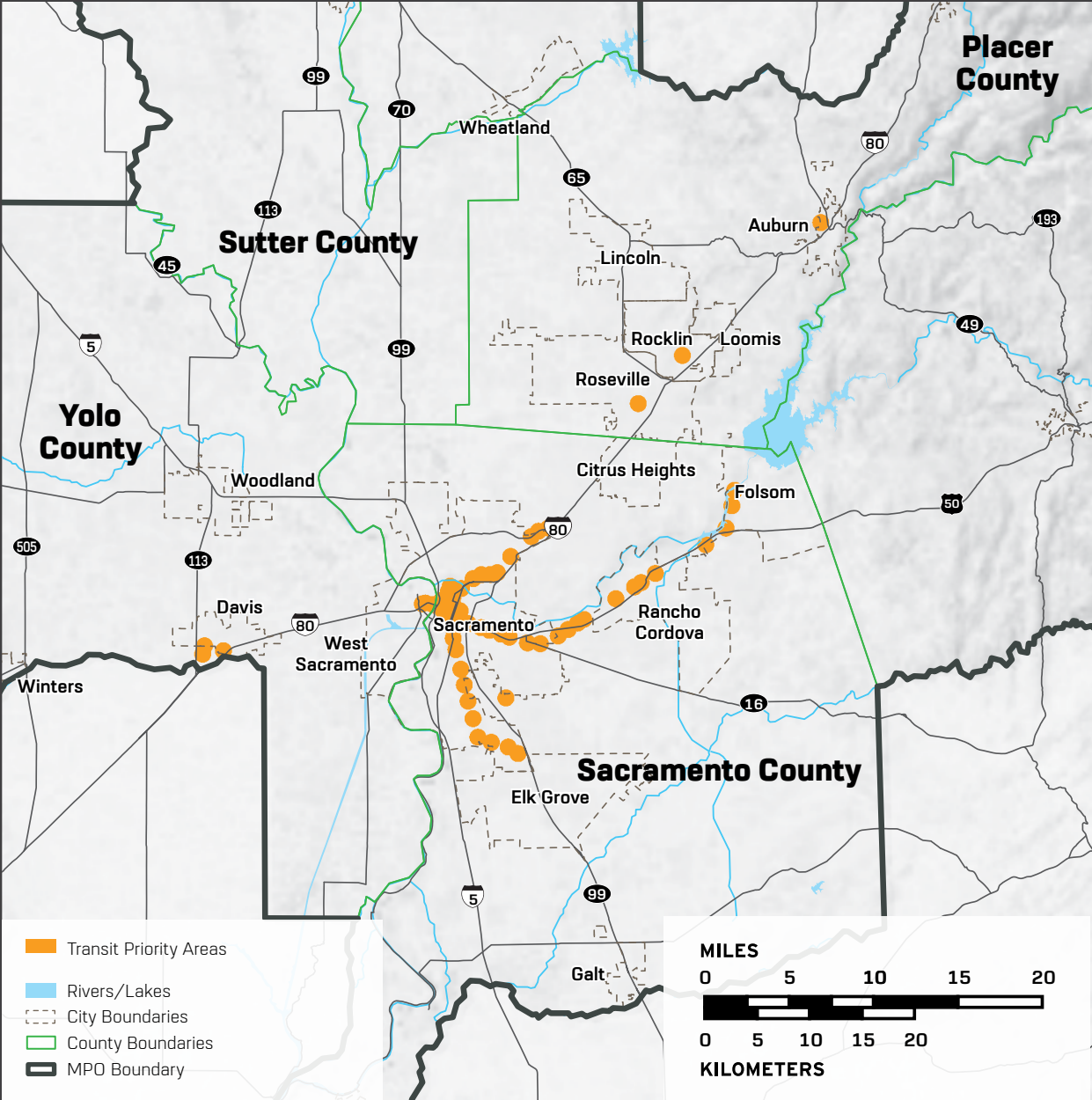
FIGURE 3.7 High Frequency Transit Areas

FIGURE 3.8 SB 743 Transit Priority Areas



Travel

WE WILL HAVE PROVIDED MORE TRANSPORTATION OPTIONS AND INNOVATIVE MOBILITY SOLUTIONS.

This plan invests in multiple modes of travel to get people to and from major job centers in the future as well as ways to get around their communities. It provides more and new types of transit where development is dense enough to serve with transit. For example, we're planning for a doubling of transit service hours by 2040, increasing the proportion of the region's residents living near a high frequency transit line from 15 percent today to more than 40 percent by 2040. More than 95% of this expanded transit service comes from fixed route bus, bus rapid transit, and express bus service and frequency increases. Providing more transit service allows for higher frequency service on corridors with lots of ridership potential, broader coverage during weekdays (e.g., more evening service), and more service during weekend hours. We are projecting a significant increase in the number of homes and jobs near high-frequency transit, with such jobs increasing by 19 percent and homes by 27 percent. Nearly half of all jobs in the region will be near high-frequency transit by 2040.

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BUILDING BLOCK

WHAT IS TRANSPORTATION DEMAND MANAGEMENT?

Transportation Demand Management (TDM) plays an important role in supporting and encouraging alternative mode use in the region where land use patterns and transportation options currently enable more modal choices now or in the future. Because the transportation landscape is changing with rapidly changing technologies, demographics, travel patterns, and shared mobility options, SACOG undertook a Strategic Planning effort in 2016 to re-design and implement a TDM program that was performance-based, cost-effective, and clear in

outcomes. Since then, SACOG launched a new Innovative Mobility program in 2019 that combines traditional TDM activities with the development and testing of innovative mobility solutions. A major component of this new program is to fund demonstration projects that solve transportation challenges with new mobility solutions in the form of an accelerator program. Another large part of the program is to expand the reach of existing and new tools, programs, and incentives that reduce emissions and vehicle miles traveled.

Travel

The plan shows that the share of commute trips by transit, bike or walking will rise from 10 percent in 2016 to 13.6 percent in 2040, with the share of all trips rising from 11.5 percent to 14.3 percent. It also invests in technologies to give travelers information about the types of trips they can take to provide them convenient choices, whether that be by walking, bicycling, scootering, driving, car-sharing, riding transit, or even some future form of travel yet to be rolled out.

The key words here are choice and convenience. For the health of our communities and to reduce congestion, we need to make it easier for people to make choices other than driving alone. Currently, 42 percent of the region's total trips and 70 percent of commute trips are by people driving alone. By investing in projects such as complete streets, bikeshare, transit modernization, communications infrastructure, transportation demand management programs, and new mobility, we will make it safer, cheaper, and more convenient for people to choose other options.

Some of these choices are well-established and durable. We have been walking since our species first stood up, bicycles have been with us for nearly two centuries, and the internal combustion engine ruled the 20th century. Now we have many new mobility choices and they are proliferating so quickly that it is hard to predict the winners in 2040. Not many people foresaw that shared electric scooters would prove popular in cities around the world when they debuted in mid-2017, and now there are more than 1,000 on the streets of Davis, Sacramento, and West Sacramento.

The current pace of change in the world of transportation is unprecedented and we can't predict which new modes of travel will prove popular. But we can test, plan for, and help cities and counties work out which new mobility solutions work best for their communities to help all our residents access the places they want to go.

— *Continued on page 59*

BUILDING BLOCK

WHAT IS VMT AND WHY DOES IT MATTER?

A vehicle mile traveled, or VMT, represents one vehicle traveling on a roadway for one mile. Regardless of how many people are traveling in the vehicle, each vehicle traveling on a roadway generates one VMT for each mile it travels.

VMT is a primary (though not perfect) indicator used by policymakers and transportation professionals when looking at the performance of our transportation system. In general, the prevalence of this measure is due to six factors in which VMT:

1. **IS RELATIVELY STRAIGHTFORWARD TO MEASURE:** by counting traffic on roadways at different locations. As a result, it is one of the few measures of transportation performance that is consistently documented over time using traffic counts and monitoring programs.
2. **BEARS A DIRECT RELATIONSHIP TO VEHICLE EMISSIONS:** more VMT generally equates to more vehicle emissions. This relationship gets more complex as we start forecasting VMT into the future where we must account for increasing prevalence of electric, hybrid, and other vehicle technologies that will change this relationship.

- 3. HAS A STRONG CORRELATION WITH THE PRESENCE OF TRAFFIC CONGESTION:** the more miles people are driving in their vehicles, the more vehicles there are on the road at any given time. Higher numbers of vehicles eventually result in congestion.
- 4. CORRELATES WITH FREQUENCY OF TRAFFIC COLLISIONS:** Although vehicle design and safety features, roadway facility design, and traveler behavior affect the frequency and severity of accidents, a major factor in determining the number of accidents that occur on our roadways is the amount of travel. Safety analysts and researchers rely on measures of VMT to track and understand trends in traffic collisions.
- 5. CAN BE INFLUENCED BY POLICY IN SEVERAL DIFFERENT WAYS:** By providing attractive alternatives to driving alone, we can reduce VMT by shifting from vehicle to non-vehicle modes [e.g., from a car trip to a bike or walk trip], or from low occupancy to higher occupancy vehicles [e.g., from a single-occupant vehicle trip to a carpool or transit trip].
- 6. CAN BE INFLUENCED BY LAND USE PATTERNS:** A better mix of residential, employment, education, and service uses in an area can allow people to accomplish their daily activities with less driving, and consequently, less VMT.

Adding 620,000 new people to the region will increase overall VMT as new residents commute to their jobs, drop their children off at school, head to the grocery store, or make any other number of daily trips. However, an important goal of this plan is to reduce the rate of VMT growth. This rate, measured as VMT per capita, is a critical indicator of the plan's success. One outcome of this plan is a 10 percent reduction in VMT per capita in the year 2040 compared to today. This means that a resident, who today drives an average of 20 miles on a given weekday for work, trips to the store, or other errands, will shave an average of two miles off the distance they drive in their car on a daily basis in 2040. While this may

seem like a modest change, it has huge implications when multiplied across the 3.1 million people that will live, work, and play in our region 20 years from now.

Achieving even this 10 percent reduction in VMT per capita cannot be taken for granted and will require a concerted effort by public and private sectors in the region. When VMT growth outpaces population growth, congestion tends to increase, air quality gets poorer, and our transportation system becomes less reliable for all roadway users. The outcomes of this plan depend on avoiding this trend over next 20 years.

FIGURE 3.9 Vehicle Miles Traveled per Capita in the SACOG Region over Time

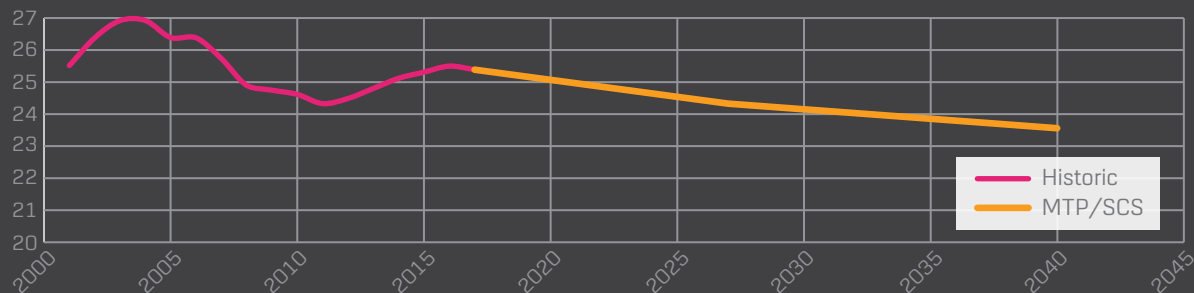


FIGURE 3.10 2016 Vehicle Miles Traveled per Capita

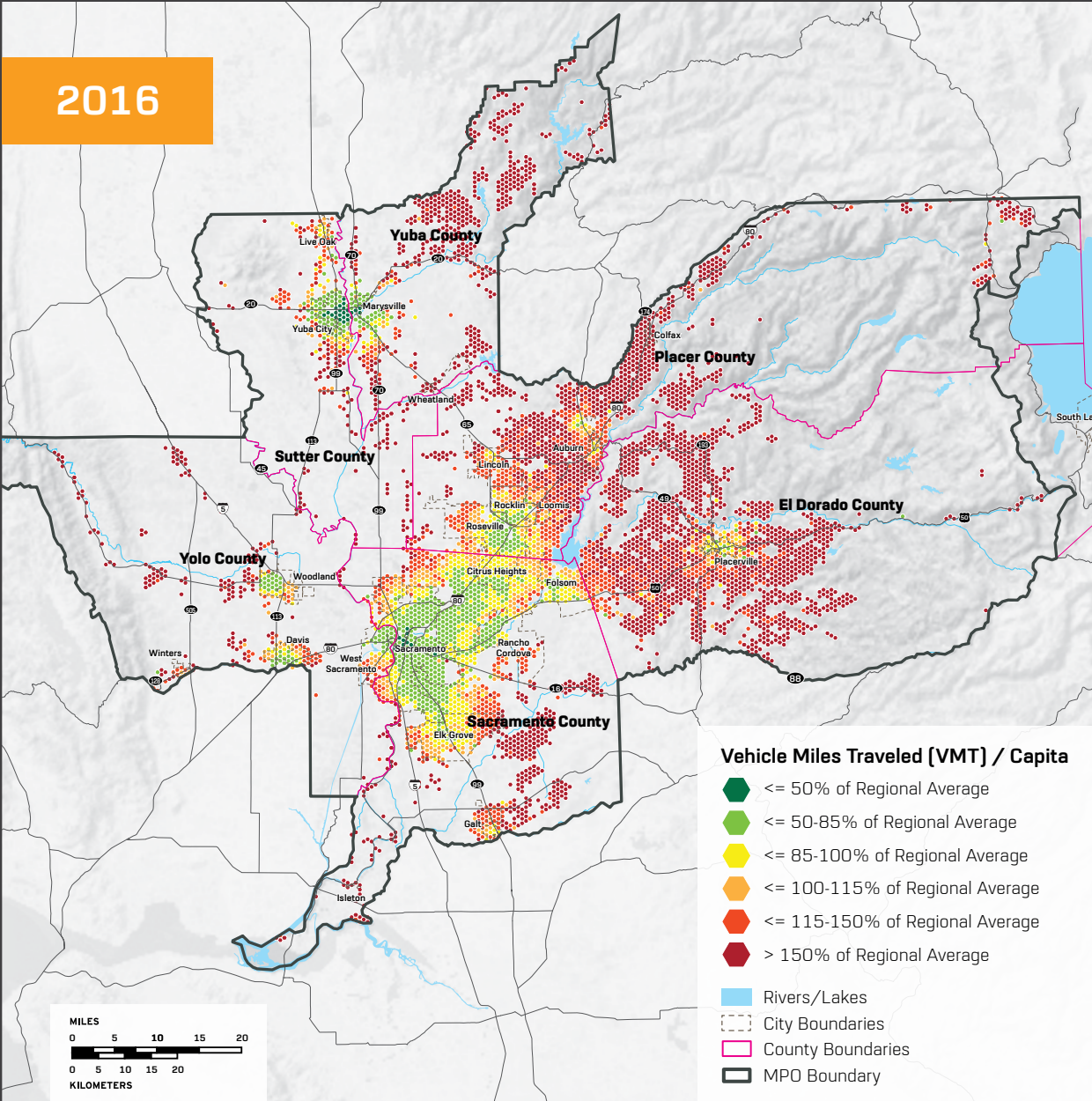
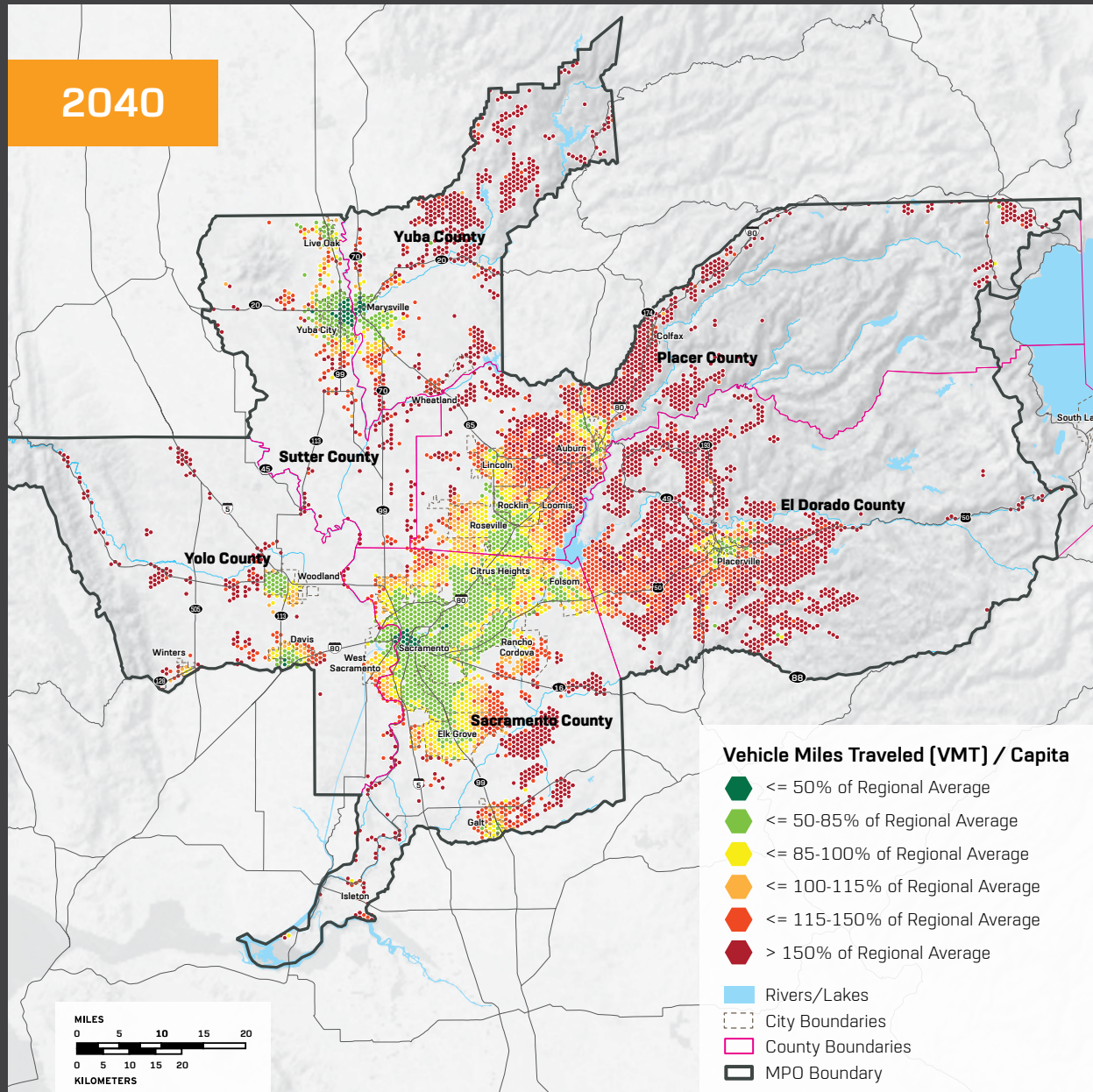


FIGURE 3.11 2040 Vehicle Miles Traveled per Capita

A more compact land development pattern and providing alternatives to driving alone are critical strategies for reducing the amount of driving we do in our daily lives. Location within the region is very likely the most important variable in determining how much time people spend in their vehicles. Communities within existing urban areas, and with a mix and density of uses, tend to produce less VMT per new resident than places that are farther away and spread out. These “lower VMT” areas also tend to have the density and mix of uses to support better transit service and are friendlier to biking and walking for some trips. **FIGURE 3.10** shows the distribution of VMT generation in the region based on our land use pattern in 2016 with blue and green areas representing areas that tend to generate relatively low daily VMT per person and red and pink areas showing places that tend to rely more on driving for daily activities.

For a closer look at the benefits and challenges of VMT as a transportation metric and a description of other metrics and indicators that inform the MTP/SCS, see **Appendix E: Plan Performance**.

One of the Sacramento region’s greatest assets is the diversity of communities and neighborhoods that provide people options for the type of lifestyle they want to lead. The MTP/SCS plans for a future that offers options from dense, urban environments where residents may choose to forego owning a car completely, opting instead to ride transit, walk, bike, or join a car- or ridesharing service — to suburban neighborhoods where one might take a shorter car trips and occasional transit, walk or bike trips — to quiet, rural residential neighborhoods and farming towns where owning a vehicle is commonplace and a near necessity for daily travel.

Today, and in the future, most of our residents will live in suburban communities that vary greatly in the amenities, proximity to jobs, and transportation options they offer.

The plan does not call for all communities everywhere to be built and look exactly the same. Rather, the plan calls for filling in our existing suburbs, revitalizing aging commercial corridors, bringing a greater mix and intensity of uses to urban cores, and realizing coordinated and phased expansion to new greenfield areas. A balanced approach to growth is an important part of the land use and transportation strategy of the MTP/SCS.

This phased approach to development will help keep the rate of VMT growth below that of population growth in a couple of ways. First, by filling in existing communities that already have a good mix of uses and transportation options [the blue, green, and yellow areas in **FIGURE 3.10**] we can expand and improve the infrastructure and services that are already in place today. Second, by building out newer communities or bringing more amenities and services to where housing already exists or, inversely adding housing to areas rich in jobs and services [generally the orange, pink, or red areas on the map] people will have more options to live, work and play in closer proximity. This has the effect of reducing the need to choose a car for every trip and makes it easier to walk, bike, or hop on a bus for at least some daily trips. **FIGURE 3.11** shows the VMT generation across the region in 2040.



Travel

WE WILL HAVE BECOME A TEST-BED FOR NEW MOBILITY SOLUTIONS AND AUTONOMOUS, ELECTRIC VEHICLES.

In order to discover how new mobility technologies will work in our communities, we need to test them. Encouraging and designing such tests, collecting data, and then using those insights to help develop policies and procedures are key roles for SACOG, in partnership with local communities. Our most significant effort in this area has been through our innovation accelerator, Civic Lab. In 2018, its first year, Civic Lab focused on innovative mobility solutions. Civic Lab convened eight cross-disciplinary teams from different jurisdictions sector teams to tackle challenging issues related to transportation and land use, and to pilot innovative solutions that can have local and regional impacts. Teams consisting of public agencies with non-profit and private sector partners came together to test and innovate on planning, programs, and policy. Their hard work paid off with the SACOG Board of Directors allocating \$1 million in project funding which was then matched with nearly \$2 million in additional public and private dollars. As a result, many pilot programs launched throughout the region in 2018-2019:

REGION'S FIRST PASSENGER AUTONOMOUS

VEHICLE PILOT: This program put an electric, 3D-printed Olli shuttle on the campus of Sacramento State to test how students, staff and the public staff would interact with it. Additionally, the university held three courses on engineering, sociology, and design to create hands-on learning for students.

APPLE HILL PROJECT: This resulted in reduced traffic during peak tourist times by using wayfinding apps, increasing signage, and improving transit between ranches in this popular agritourism center.

FIRST/LAST MILE SUBURBAN PROJECT:

Launched multiple projects that include microtransit and travel training programs.

DAVIS AMTRAK STATION PROJECT: Works with qualified vendors to increase car occupancy rates with mobile apps and to develop microtransit services.

FRANKLIN BOULEVARD ZERO EMISSIONS

PROJECT: Operates microtransit and will also fund all-electric shuttle buses through Electrify America.

RANCHO CORDOVA AUTONOMOUS VEHICLE

PROJECT: Implemented the region's second Olli shuttle on the White Rock Corporate Campus, a large business park that is home to 1,600 employees. It represented the first time an Olli shuttle had been tested in a business environment.



Travel

In Civic Lab Year 2, teams focused on innovative solutions to transform commercial corridors throughout the region. The success of Civic Lab has led to a stand-up program to support innovative mobility pilot tests.

Embracing the concept of our region becoming a test-bed for transportation innovation has been a core goal for SACOG, but this is not our job alone. Recognizing the significant economic opportunity of establishing ourselves as a test-bed, several other regional entities including SMUD, Los Rios Community College District, California State University Sacramento, University of California Davis, the city of Sacramento, and the Greater Sacramento Economic Council (GSEC) have committed to establishing the California Mobility Center. In partnership with PEM Aachen's prototyping center in Germany, this center plans to leverage Sacramento's status as the regulatory center of the world's fifth largest economy to attract investment and pilot projects from the electric vehicle industry. This will seed new business ventures, encourage new technology training for the regional workforce, and make our region a center of the clean transportation industry.

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This center will support the community and it will create jobs. It can solve some of the disparity of rich and poor in the community and at the same time, it can improve our carbon footprint.

BARRY BROOME
GSEC Chief Executive Officer

BUILDING BLOCK

SB 375 AND THE 19 PERCENT GREENHOUSE GAS REDUCTION TARGET

WHAT IS SB 375?

Senate Bill 375 [Chapter 728, Statutes of 2008] is a California state law aimed at reducing greenhouse gases from passenger vehicles by 2035 as compared to a 2005 baseline. This law was significantly influenced by the Sacramento Region Blueprint and other smart growth scenario planning initiatives in San Diego, the Bay Area, and Los Angeles. The law requires MPOs to integrate regional land use, housing, transportation, and climate change planning in long range transportation plans like the MTP/SCS.

Under the law, CARB is responsible for setting performance targets for passenger vehicle emissions for each of the state's 18 MPOs. MPOs are responsible for demonstrating how these targets can be met through the incorporation of a SCS into long-range transportation plans. SB 375 also amends the California Environmental Quality Act (CEQA) to provide incentives for residential and residential mixed-use projects that help to implement an MTP/SCS that meets the ARB targets.

SB 375 focuses on integrated planning processes and incentives rather than a traditional regulatory approach. MPOs are not required to meet the greenhouse gas emission targets established by ARB if they conclude it is not feasible to do so, but then they must prepare an Alternative Planning Scenario to demonstrate what further land use and/or transportation actions would be required to meet the targets.

While the MTP/SCS is required to integrate land use and transportation planning, the plan recognizes and protects

local land use authority. Under SB 375 and the MTP/SCS, the region's cities and counties retain local land use authority over where future development occurs. The MTP/SCS land use and transportation assumptions are built using local plans and in close coordination with planning and transportation staff around the region. The plan does not mandate any changes to local zoning rules, general plans, or processes for reviewing projects; nor can the plan act as a cap on development in any given jurisdiction.

MEETING OUR GREENHOUSE GAS REDUCTION TARGET

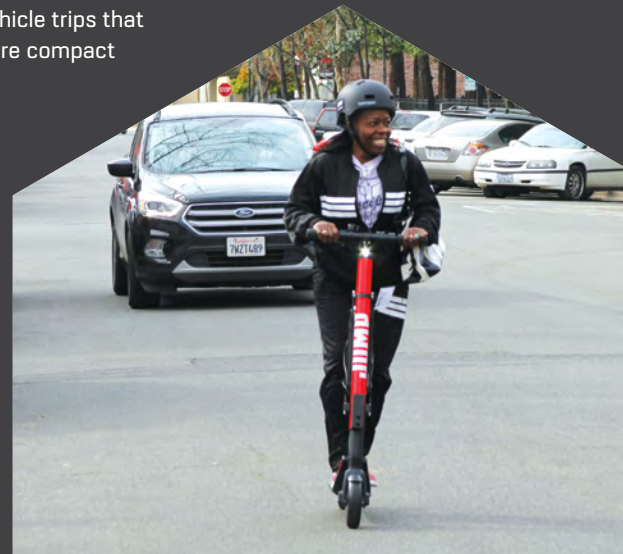
For the 2020 MTP/SCS, the ARB assigned SACOG a 19 percent greenhouse gas reduction target. Specifically, this target is the percent reduction in passenger vehicle greenhouse gas emission per capita, compared to year 2005 (**FIGURE 3.12**). In actual emissions, this change represents a reduction from just over 23 pounds per capita on a given weekday in 2005, to just under 19 pounds by 2035.

There are many factors that influence the amount people drive and the emissions their vehicles generate. **FIGURE 3.13** provides an accounting of the key factors that influence greenhouse gas emissions in the MTP/SCS.

Two of these factors are largely outside of the region's control. First, changes in auto operating cost related to the cost of owning and driving a vehicle (e.g., maintenance, tires, insurance) and second, demographic factors like aging of the population.

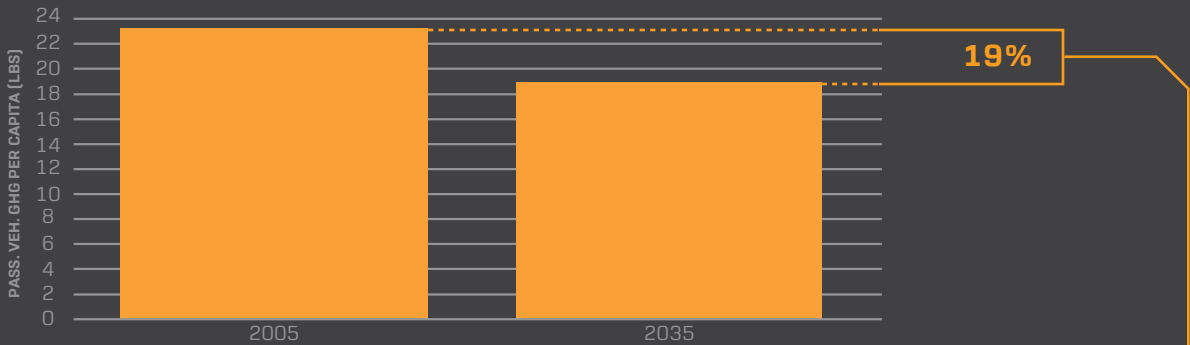
Five primary factors are related to policies and actions of the MTP/SCS:

- 1. SHORTENED VEHICLE TRIPS:** Reducing the average trip length of the vehicle trips that residents take on a daily basis. This is accomplished largely through a more compact development pattern with a greater density of uses.
- 2. INCREASED TRANSIT, BIKE, WALK TRIPS:** Shifting trips from vehicle travel (which generate passenger vehicle greenhouse gases) to non-vehicle modes such as transit, biking, and walking.
- 3. EXPRESS LANES AND PAY-AS-YOU-GO FEES:** Price signals are an important factor in predicting how people will travel. Transitioning away from the California fuel tax, which will diminish on a per-mile-traveled basis over time, to tolling and a pay-as-you-go or mileage-based fee, will not only help generate revenue to build and maintain the system, but help to better manage demand on that system.



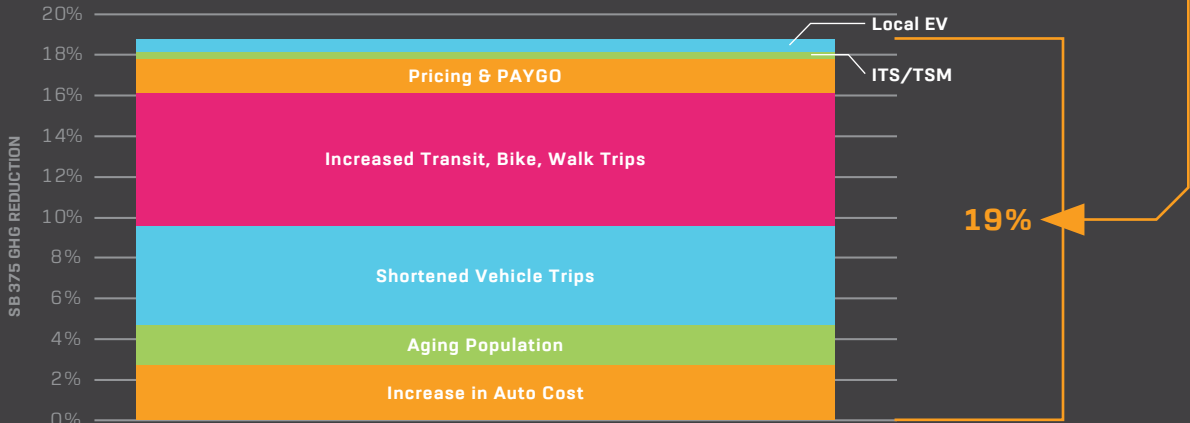
- 4. **ITS/TSM:** Implementing intelligent transportation systems (ITS) and transportation system management (TSM), will smooth traffic flows which have the benefits of making the system more reliable, making better use of existing travel lanes, and reducing emissions from vehicles.
- 5. **ELECTRIC VEHICLES:** Locally funded and implemented programs that incentivize the use of electric vehicles and accelerate the penetration of these vehicles into the regional market.

FIGURE 3.12 Meeting the Regional Greenhouse Gas Target



Source: SACOG, July 2019. Based on draft 2020 MTP/SCS forecasts. Metric for SB 375 GHG reduction is passenger vehicle GHG per capita. Estimates shown are for typical weekday conditions. EMFAC2014 used for GHG estimate. Reduction calculated as percentage change from 2005.

FIGURE 3.13 Key Factors Contributing to 19% GHG Reduction



Source: SACOG, July 2019. Based on draft 2020 MTP/SCS forecasts.



e-Wifi
Ali Baba
Ali Baba
Kebab
Falafels
Burgers
Gyros
Hummus





Nikky Mohanna

Small Is Beautiful

Nikky Mohanna has always lived in what she calls micro-units. In Sacramento she lived in a 350 square foot studio on top of a hundred-year-old building, the former Levinson's bookstore on 10th Street.

"It showed me that you can totally live in a unit that small because of the amenities the urban core has to offer," said the 29-year-old property developer. When she left Sacramento, she lived in tiny apartments in New York, London, and Tehran and became convinced that small apartments were "the natural progression of a city . . . for the urban core to be successful, you need these types of products."

When she returned to Sacramento in 2015, she set about developing 19J, which has been called Sacramento's first micro-apartment building. But she says that small apartments for urban workers were a key part of the city's housing in a formerly vibrant downtown before people fled for the suburbs in the 1970s.

"Today what we see as single room occupancy buildings, that was the housing that was built for the workforce. So even though today it has a bad connotation because of the way they were abandoned when everyone left for the suburbs, bringing that whole history back that was part of the fabric of the city, the microunits that we're building today are really not new, I see it as just enhancing our history."

The 11-story 19J Midtown project has studios as small as 412 square feet (sf) and one-bedroom units from 522 to 908 sf but what has really grabbed attention are the micro-units that start at 278 sf and \$995 a month. When we spoke just weeks away from opening, she said she had had over a thousand applications for 175 units in a very short time frame "and the majority of those are interested in the micro-units and most of those are leased up."

She credits the interest to people's desire to live closer to where they work and says this is especially important for the people who work in the industries that help make Midtown vibrant, such as chefs, waiters, and bartenders.

"The people who are creating the vibrancy that makes everyone want to be a part of this community are the people who can't afford to live in this community. That's not the way you build a sustainable city. . . . So things like micro-units, co-living, those are some of the opportunities. Even though it is very expensive to live in Downtown and Midtown and do urban infill, there are creative ways that through design we can create efficiency and bring down the price point to make it more affordable."

To make 19J "pencil", Mohanna had to convince the City of Sacramento to allow the building to exceed the six-story height limit and to use a novel construction technique. Some Midtown residents were opposed to the 11-story height of the project but she said that through dialogue and conversation, she was able to win people over to the project's merits and why it needed to be that high to work financially.

The project was built using a construction technique Mohanna had seen used in Portland and Seattle that made a high-rise building more cost-effective. It is the first load-bearing metal-stud structure in Sacramento and the tallest in California. It took a lot of research to convince City engineers it would work but she said the City was very open to pushing the envelope and gave them a lot of credit for their open-mindedness.

It was not easy to be the pioneer but Mohanna said that once 19J was stabilized as a viable project, it would provide an important comparable product in the market and would spur more such apartment projects.