DRAFT 2022 PROGRESS REPORT

CALIFORNIA'S SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT

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CONTENTS

ABBREVIATIONS

AB	Assembly Bill
ADU	Accessory Dwelling Unit
AFFH	Affirmatively Furthering Fair Housing
AHSC	Affordable Housing and Sustainable Communities
AMBAG	Association of Monterey Bay Area Governments
AV	Automated Vehicles
BAHFA	Bay Area Housing Finance Authority
BCAG	Butte County Association of Governments
BIPOC	Black, Indigenous, People of Color
Cal-ITP	California Integrated Travel Project
CalSTA	California State Transportation Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CAPTI	Climate Action Plan for Transportation Infrastructure
CMIS	Clean Mobility in Schools
CMO	Clean Mobility Options Voucher Pilot Program
CO2	Carbon Dioxide
EBIP	Electric Bicycle Incentives Project
EIFD	Enhanced Infrastructure Financing District
EV	Electric Vehicle
FCOG	Fresno Council of Governments
GHG	Greenhouse Gas
HCD	California Department of Housing and Community Development
HELPR	Housing Element Parcel
IIJA	Infrastructure Investment and Jobs Act
KCAG	Kings County Association of Governments
KCOG	Kern Council of Governments
LCTOP	Low Carbon Transit Operations Program
LOS	Level of Service
MCAG	Merced County Association of Governments

MCTC	Madera County Transportation Commission
MPO	Metropolitan Planning Organization
MTC/ABAG	Metropolitan Transportation Commission/Association of Bay Area Governments
OPR	Governor's Office of Planning and Research
RAISE	Rebuilding American Infrastructure with Sustainability and Equity
REAP	Regional Early Action Planning Grants
RHNA	Regional Housing Needs Allocation
RTP	Regional Transportation Plan
SACOG	Sacramento Area Council of Governments
SANDAG	San Diego Association of Governments
SB	Senate Bill
SBCAG	Santa Barbara County Association of Governments
SCAG	Southern California Association of Governments
SCEA	Sustainable Communities Environmental Assessment
SCS	Sustainable Communities Strategy
SGC	Strategic Growth Council
SJCOG	San Joaquin Council of Governments
SLOCOG	San Luis Obispo Council of Governments
SRTA	Shasta County Regional Transportation Planning Agency
StanCOG	Stanislaus Council of Governments
STEP	Sustainable Transportation Equity Project
TCAG	Tulare County Association of Governments
TIRCP	Transit and Intercity Rail Capital Program
TPPs	Transit Priority Projects
TRPA	Tahoe Regional Planning Agency
UGB	Urban Growth Boundary
VMT	Vehicle Miles Traveled
ZEV	Zero Emission Vehicle

EXECUTIVE SUMMARY

Californians are driving more – leading to more pollution, higher costs, and worse day-to-day experiences – despite State planning statutes that encourage better transportation and planning decisions. The core problem is that even well-made plans too often remain as plans, rather than becoming realities. The gap between intention and action impairs our daily quality of life, and harms are worst in communities that have already borne the brunt of car-dependent planning in the past. Changing this status quo demands sustained investments in housing, transit, and walking and biking, as well as durable changes in how State, regional, and local governments fund and implement transportation and land use policies and projects. Many efforts are already identifying solutions, and putting hundreds of millions of dollars in funding behind them, but the worsening and immediate climate and air quality challenges ahead warrant faster action. This report documents these worrying trends, and highlights opportunities for immediate action.

This report assesses implementation of the Sustainable Communities and Climate Protection Act, Senate Bill (SB) 375, passed in 2008.[1] SB 375 is a first-of-its-kind law to recognize the critical role of integrating transportation, land use, and housing decisions in helping to reduce driving to meet California's climate goals. The law requires each of California's 18 regional metropolitan planning organizations (MPOs) to include a sustainable communities strategy (SCS) in its long-range regional transportation plan (RTP) to meet regional per capita greenhouse gas (GHG) emission reduction targets for light-duty passenger travel set by the California Air Resources Board (CARB).

Regional SCS plans include strategies to deliver sustainable development patterns and transportation systems in each region. In developing SCS plans, regions have considered the provision of housing that is affordable at all income levels and closer to jobs, transit, parks, schools, and other key destinations, as well as how to expand transit and active transportation options to enable people to drive less.

Implementation of SCS plans is essential to meeting the State's climate goals. Under SB 375, MPOs estimate the combined impact of transportation, land use, and housing development patterns included in the RTP/SCSs on per capita GHG emissions. The impacts to GHG emissions are based primarily on changes to vehicle travel, as measured by per capita vehicle miles traveled (VMT). Even with improvements in clean vehicle technology and fuels, it is still necessary to reduce driving to meet State climate and air quality commitments.

Strategies to lower driving are not only essential to meet State climate and air quality goals but can build better places for everyone in ways that begin to address health disparities and entrenched inequities experienced by California's most overburdened

[1] SB 375 (Steinberg, Chapter 728, Statutes of 2008).

black, indigenous, people of color (BIPOC), low-income, and underprivileged communities. Success will require changing how California builds and connects communities to make it easier for people to afford homes in places with good access to jobs, services, open space, and education, as well as a variety of transportation options that reduce the need to drive. Supporting active modes of transportation – walking, rolling, cycling, and taking public transit – can also yield significant health benefits through reduced chronic diseases and premature deaths. Taking hold of this opportunity can give all Californians, not just the white and wealthy, broader access to what California has to offer. Implementation of SCSs is therefore also central to advancing equity and public health. But to successfully make this a reality will require strong action on land use and transportation strategies at all levels of government in California, including State, regional, and local.

In 2017, the Legislature passed SB 150[2] directing CARB to prepare a progress report every four years that assesses the progress that each MPO has made in meeting the regional GHG emission reduction targets set by CARB. The report must include changes to GHG emissions in each region and other data-supported metrics. It must also include a discussion of best practices and challenges faced by MPOs in meeting the targets, including the effect of State policies and funding. In 2018, CARB published the first report, *2018 Progress Report: California's Sustainable Communities and Climate Protection Act*, referred to as the 2018 Progress Report.[3] In addition to the required reporting elements for SB 150, CARB incorporates recommendations on ways to overcome challenges to SCS implementation in both the 2018 and 2022 Progress Reports.

For this 2022 Progress Report, CARB collected and analyzed data for over two dozen indicators to tell a more complete story regarding land use and housing trends; travel behavior; and whether transit, carpooling, and active transportation have become more convenient and frequent choices relative to driving. For the first time, CARB is including metrics for VMT by region, accessibility to key destinations, housing activity by income level, units with a density bonus or inclusionary deed restrictions, and Greenhouse Gas Reduction Fund spending.

Unfortunately, since the first report, most trends demonstrate limited progress in meeting the targets through 2019. While some limited progress on VMT reduction has been observed within the largest MPO regions where most Californians live, it has not been enough. There is an urgent need to build on the good work that has produced some positive change in these regions in light of the overall trajectory. Many trends moved in the wrong direction, away from advancing climate goals and showing worsening inequality. Although the 2020 data were not available for this report, the

[2] SB 150 (Allen, Chapter 646, Statutes of 2017).

[3] California Air Resources Board. *2018 Progress Report: California's Sustainable Communities and Climate Protection Act*. November 2018. Available at: https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf.

COVID-19 pandemic further impacted the ability of regions to implement SCSs as commute patterns, construction and building supply chains, transit use, and the general economic downturn disrupted land use and transportation activity. To understand these findings, CARB staff then interviewed stakeholders about the challenges holding back progress, as well as opportunities for addressing them.

KEY METRICS FINDINGS

California is still not reducing GHG emissions from personal vehicle travel as needed under SB 375. Per capita GHG emissions and per capita VMT continued to increase, though more slowly than in the 2018 Progress Report.

Californians continue to drive farther distances in the course of their daily lives. California has made policy efforts to expand access to affordable homes in convenient locations, and to safe and useful travel choices, but these have not yet been sufficient to reverse the increase in per capita GHG emissions and per capita VMT found in the 2018 Progress Report and again in this 2022 Progress Report. Increases in per capita GHG emissions and per capita VMT are observed in nearly all MPO regions, though the rate of increase has slowed compared to the 2018 Progress Report.

Californians are still choosing to drive.

In general, from 2005 to 2019, Californians continued to drive more, and carpool less, when traveling to work. All types of roadways have continued to expand, although investing in an auto-oriented transportation network and growth pattern can induce additional VMT.[4] The number of vehicles per household is growing. At the same time, the relatively small percentage of people who walk and bike to work decreased. Transit ridership in most MPO regions has decreased since 2005. Furthermore, while transit service hours either remained steady or grew in most regions between 2005 and 2019, data show transit boardings in most MPO regions decreased during the same period, especially starting in 2014. Although the transit ridership decline was occurring before the COVID-19 pandemic, a sharp decline in all regions due to the pandemic compounds the challenge to attain ridership at the levels identified in SCSs.

New growth has generally been more compact, but most residents in each region still cannot walk to key destinations, and development in the San Joaquin Valley actually became less compact.

Overall development has become more compact since 2005,[5] with the average amount of land being newly urbanized for each new resident declining over time.

[4] S. Handy, M. Boarnet. 2014. Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions. Available at: https://ww2.arb.ca.gov/sites/default/files/2020-06/Impact_of_Highway_Capacity_and_Induced_Travel_on_Passenger_Vehicle_Use_and_Greenhouse_Gas_Emiss ions_Policy_Brief.pdf

[5] Measured in persons/developed acre.

However, the pattern differed substantially between rural and urban regions. The four largest MPO regions[6] have increased in compactness substantially since 2005, while the San Joaquin Valley MPO regions have become less compact. Despite the trend in some areas for locations to be closer together, still less than half of the population in every region can access key destinations (i.e., park/open space, educational facility, transit stop, and grocery store) within 15 minutes by walking.

Home construction is not meeting regional housing needs in numbers, types, and location.

Despite an increase in planning for homes at all income levels, efforts to build homes are not meeting the need, particularly for homes for lower-income households. While most cities and counties have certified housing elements, housing permitting and construction levels do not match what is assumed in SCS plans, especially affordable housing (e.g., very low-income and low-income housing). In all regions, above moderate-income housing is being built at a faster rate than moderate-, low-, and very low-income housing. If not reversed, this trend of not building enough homes at all income levels, particularly for the lowest-income Californians, risks worsening housing cost burdens and could even lead more people to become homeless. The types of housing being provided vary greatly by region, with more urban regions generally showing a greater rebound in housing unit growth from the 2008 recession and a greater shift away from detached single-family and toward multi-family home construction over the last decade. Accessory dwelling units (ADUs) have increased in some regions as well, even in some regions with lower overall density. Wildfires tragically and significantly reduced the total number of homes available in the Butte and Shasta regions.

Detailed information on the data used, as well as charts on the statewide and regional-level results for all report metrics, are included in appendices A and B.

KEY THEMES

The overall trends are not moving in the direction needed to meet regional climate targets, which affects California's ability to meet its climate, air quality, as well as public health and equity goals. To gain some insights into factors that influence and explain why GHG emissions and VMT continue to rise, CARB consulted practitioners and stakeholders through surveys, a public workshop, interviews, and meetings. State, regional, and local agencies expressed frustration with the challenges that they experience when trying to change development patterns and transportation systems and felt that recent policy efforts would not be enough to enable implementation of the strategies in adopted SCS plans. As such, this *2022 Progress Report* calls for bold action by the Legislature and

[6] Metropolitan Transportation Commission/Association of Bay Area Governments (MTC/ABAG), Sacramento Area Council of Governments (SACOG), Southern California Association of Governments (SCAG) and San Diego Association of Governments (SANDAG).

for more work at every level of government to support and ensure SCS implementation. These interviews revealed several overarching themes:

- **Fulfilling SB 375 requires a stronger focus on implementation.** SB 375 has been an important tool to coordinate regional land use and transportation planning. However, it is incomplete; no matter how robust, regional plans alone cannot reduce emissions. They must be coupled with resources and measures to implement their identified strategies. It is critical that the State, including the Legislature, focus attention on authorizing and funding strategies and on providing other policy tools that support implementation.

  Areas of particular focus by the Legislature, State, regional agencies, and local agencies should include land use and housing strategies and transportation pricing strategies. Advancing policy levers for all levels of government to implement these two strategy areas is essential to changing travel behavior. This is consistent with the latest SCSs and with research and analysis.[7,8,9]

- **SCS implementation requires better alignment across State, regional, and local actions.** SCS implementation relies on local and regional agency decisions about where to allow development, what types of development to allow, and which transportation improvements to prioritize for funding. Practitioners and stakeholders identified the need for greater involvement by all levels of government, as partners, to foster SCS implementation. The State, in partnership with regional and local agencies, needs to revisit and reprioritize investments away from projects that will increase driving. The State also needs to secure additional resources to provide needed support, guidance, targeted funding, and policy tools to make it easier and less costly to implement this reprioritization.

[7] California Department of Transportation. *California Transportation Plan 2050*. February 2021. Pages 97-98. Available at: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf

[8] Brown, A. L; Sperling, D.; Austin, B.; DeShazo, JR; Fulton, L.; Lipman, T., et al. (2021). Driving California's Transportation Emissions to Zero. UC Office of the President: University of California Institute of Transportation Studies. http://dx.doi.org/10.7922/G2MC8X9X Retrieved from https://escholarship.org/uc/item/3np3p2t0

[9] California Air Resources Board. *Draft 2022 Scoping Plan Appendix E Sustainable and Equitable Communities.* March 2022. Pages 17 and 24. Available at: https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp-appendix-e-sustainable-and-equitable-communities_0.pdf

CHALLENGES & OPPORTUNITIES

CARB heard from stakeholders regarding remaining challenges and the need for further action. Discussion of the challenges and potential near-term actions to address them are organized in the report by the following main strategy areas.

- **Land Use and Housing:** Nearly all SCSs include land use strategies such as supporting job and housing growth in identified priority development areas. However, actual growth patterns in each region have diverged from these strategies. Stakeholders identified both challenges and potential responsive actions to incentivize alignment of local land use policies and development projects with regional plans, to accelerate infill housing production, and to expand tools and resources to increase and protect affordable housing.

- **Transportation System Management:** Managing California's transportation assets such that transit and active transportation modes become more convenient to use and affordable than a car for everyday trips will require additional tools and innovation. Stakeholders identified challenges in this area, and outlined potential solutions such as authorizing transportation pricing and optimizing the transit experience.

- **Transportation Planning and Investments:** Many stakeholders reiterated several challenges with funding the transportation planning and projects that implement the SCS. Specifically, Federal, State, and local transportation funding sources need better alignment with State objectives around climate and equity, and both new and existing funding sources should be designed in ways that are sensitive to community needs and flexible to change. Stakeholders identified potential solutions such as reimagining roadway projects that increase VMT, improving access to funding for multi-modal projects, and prioritizing community needs.

- **New Mobility and Electric Vehicles:** Transit ridership declines, which worsened due to the pandemic, make it evident that public transportation must evolve to better meet changing community needs. Regional SCSs include new mobility strategies that complement public transit and investments in electric vehicle charging and deployment. However, clear standards for operation and safety for new mobility technology, and dedicated funding to sustain new services beyond their pilot phases, are needed. Stakeholders identified potential solutions to challenges in this area such as supporting new mobility connections to transit and coordinating electric vehicle investments and infrastructure.

More detailed discussion of opportunities and strategies for land use and housing, transportation system management, transportation planning and funding, and new mobility and electric vehicle in the SCSs is in the "Remaining Challenges and Need for Further Action" section of this 2022 Progress Report.

In short, this report finds that different tools are needed to meet the GHG emission reduction goals and establish direct pathways for implementation of SCS strategies. California is at a decisive moment. California has always been adept at imagining and creating new futures. Our collective success at creating entire new zero-emission technology industries is an example of our progress. But zero emission vehicles alone are not enough to fix our transportation and housing systems – instead, we need to create a future that does not depend on cars. Just as we created cutting-edge technology to meet zero-emission standards, we need to create tools to implement walkable cities; frequent and inexpensive or free transit; complete streets; and attractive, abundant, and affordable housing options. California can rise to this challenge, and make its landscapes and communities more inclusive and health promoting by doing so. Meeting the State's new carbon neutrality goals, and related health and equity goals, will require full implementation of SB 375 SCSs and other strategies that produce the sustainable development patterns and transportation systems California needs. However, the current toolbox is insufficient for the job, and time is running out.[10]

[10] IPCC, 2022: *Climate Change 2022: Impacts, Adaptation, and Vulnerability*. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press. In Press. Available at: https://www.ipcc.ch/report/ar6/wg2/

BACKGROUND

In 2008, the California Legislature passed the Sustainable Communities and Climate Protection Act, Senate Bill (SB) 375.[11] SB 375 is a first-of-its-kind law to recognize the critical role of integrating transportation, land use, and housing decisions to meet State climate goals. It requires all levels of government to work to achieve a more sustainable future. The law requires each of California's 18 regional metropolitan planning organizations (MPOs)[12] to include a sustainable communities strategy (SCS) in its long-range regional transportation plan (RTP). The SCS identifies strategies to reduce driving, or vehicle miles traveled (VMT) and meet regional greenhouse gas (GHG) emission reduction targets set by California Air Resources Board (CARB) for light-duty passenger vehicles.

Regional SCS plans include strategies to deliver sustainable development patterns and transportation systems in each region. In developing SCS plans, regions have considered the provision of housing that is affordable at all income levels and closer to jobs, transit, parks, schools, and other key destinations, as well as how to expand transit and active transportation options to enable people to drive less. Under SB 375, MPOs estimate the combined impact of transportation, land use, and housing development patterns included in the RTP/SCSs on per capita GHG emissions based primarily on changes to vehicle travel, as measured by per capita VMT.

Implementation of SCS plans in each region is essential to meeting the State's climate, air quality, public health, and equity goals and requires all levels of government to work to achieve a cleaner and more sustainable future. CARB's modeled planning scenarios for the 2020 Mobile Source Strategy and latest Scoping Plan update process demonstrate that vehicle electrification alone will not be enough to get to carbon neutrality. Not only will California need full implementation of strategies in the SCSs and their associated VMT reductions, but the State will also need to identify ways to get even more emission reductions from transportation and land use strategies to reduce VMT sufficiently to meet climate targets.

[11] SB 375 (Steinberg, Chapter 728, Statutes of 2008).

[12] California's 18 MPOs include: Association of Monterey Bay Area Governments (AMBAG), Butte County Association of Governments (BCAG), Fresno Council of Governments (FCOG), Kings County Association of Governments (KCAG), Kern Council of Governments (KCOG), Merced County Association of Governments (MCAG), Madera County Transportation Commission (MCAG), Metropolitan Transportation Commission/Association of Bay Area Governments (MTC/ABAG), Sacramento Area Council of Governments (SACOG), San Diego Association of Governments (SANDAG), Santa Barbara County Association of Governments (SBCAG), Southern California Association of Governments (SCAG), San Joaquin Council of Governments (SJCOG), San Luis Obispo Council of Governments (SLOCOG), Shasta County Regional Transportation Planning Agency (SRTA), Stanislaus Council of Governments (StanCOG), Tulare County Association of Governments (TCAG), and Tahoe Regional Planning Agency (TRPA).

California has a major opportunity to support climate and public health goals by improving the environment where people live, work, and play for everyone, while also working to dismantle entrenched inequities experienced by California's most overburdened black, indigenous, people of color (BIPOC), low-income, and underprivileged communities. California's low- density development and resulting high VMT patterns are, to a large extent, the product of racist policies and practices[13,14] that aimed to segregate communities of color and benefit white suburban commuters. These policies – and the low-density, high VMT patterns that they helped create – continue to exacerbate inequity, underinvestment, and limited access to opportunities for BIPOC communities.[15,16] When people must drive long distances to meet daily needs, it can burden their budget,[17] impact their ability to get to work or school,[18,19] keep them away from their family, impact their personal health,[20,21,22,23,24] and more. Changing how California builds and connects communities to make it easier for people to afford homes in places where they have multiple convenient transportation choices for getting to jobs, services, recreational and open spaces, and education is an opportunity to address existing inequities

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[13] Richard Rothstein. *The Color of Law: A Forgotten History of How Our Government Segregated America*. 2017.

[14] CalEPA. Pollution and Prejudice: Redlining and Environmental Injustice in California. 2021. https://storymaps.arcgis.com/stories/f167b251809c43778a2f9f040f43d2f5.

[15] How Zoning Restrictions Make Segregation Worse, https://www.bloomberg.com/news/articles/2016-01-04/how-zoning-restrictions-make-segregation-worse.

[16] See the equity and VMT policy discussion in the CARB *2020 Mobile Source Strategy*, beginning on page 107. https://ww2.arb.ca.gov/sites/default/files/2021-12/2020_Mobile_Source_Strategy.pdf.

[17] One in three households in California doesn't earn enough money to meet basic needs, per the Statewide Housing Plan, citation to: Peter Manzo, Henry Gascon, Betsy Baum Block, and Dan Beeby, *Struggling to Move Up: The Real Cost Measure in California 2021* (South Pasadena, CA: United Ways of California, 2021), https://www.unitedwayoc.org/wp-content/uploads/2021/08/The-Real-Cost-Measure-in-California-2021-Executive-Summary.pdf.

[18] Where Sprawl Makes It Tougher to Rise Up the Social Ranks. https://www.bloomberg.com/news/articles/2016-01-27/where-urban-sprawl-makes-it-tougher-for-the-poor-to-rise-up-the-social-and-economic-ranks.

[19] Lucas, K. (2012). Transport and social exclusion: Where are we now? Transport Policy, 20, 105-113.

[20] Behzad, B., King, D., & Jacobson, S. (2012). *Quantifying the Association between Obesity, Automobile Travel, and Caloric Intake*. Preventative Medicine, 56 (2), 103-106.

[21] Jacobson, S., & King, D. (2009). *Measuring the potential for automobile fuel savings in the US: The impact of obesity*. Transportation Research Part D Transport and Environment, 14 (1), 6-13.

[22] Pohanka, M., & Fitzgerald, S. (2004). *Urban Sprawl and You: How Sprawl Adversely Affects Worker Health*. American Association of Occupational Health Nurses Journal, 52 (6), 242-246.

[23] Gee, G., & Takeuchi, D. (2004). *Traffic stress, vehicular burden and well-being: A multilevel analysis*. Social Science & Medicine, 59, 405-414.

[24] Maizlish, N. (2016). *Increasing Walking, Cycling, and Transit: Improving Californians' Health, Savings Costs and Reducing Greenhouse Gases*. Berkeley, CA: Final Technical Report to the California Department of Public Health (CPDH).

and can give all Californians, not just the white and wealthy, broader access to what they need to thrive.

In 2017, the Legislature passed SB 150,[25] directing CARB to prepare a progress report every four years that assesses the progress each MPO has made in meeting the regional GHG emission reduction targets set by CARB. The report must include changes to GHG emissions in each region and other data-supported metrics. It must also include a discussion of best practices and challenges faced by MPOs in meeting the targets, including the effect of State policies and funding. In 2018, CARB published the first report to the Legislature assessing progress in meeting SB 375 goals, *2018 Progress Report: California's Sustainable Communities and Climate Protection Act*, referred to as the 2018 Progress Report.[26]

ABOUT THIS REPORT

This is the second report to the Legislature on SB 375 implementation. For this report, CARB updated over two dozen indicators related to GHG emissions from personal vehicle travel. This report also includes new metrics: VMT by region, accessibility to key destinations, housing activity by income level, units with a density bonus or inclusionary deed restrictions, and Greenhouse Gas Reduction Fund spending.

The key questions that CARB sought to answer in this report, and the performance indicators analyzed to address those questions are listed below. Depending on available datasets, the data reporting periods vary. Most metrics are reported through 2019.

Have GHGs from Personal Vehicle Travel Declined?

- GHG Emissions Per Capita
- VMT Per Capita

Have Transportation Choices and Travel Patterns Changed Toward Lower Emission Options?

- Commute Mode Share
- Commute Travel Time by Mode
- Vehicle Ownership
- Lane Miles Built
- Transit Ridership Per Capita
- Transit Revenue Hours Per Capita

[25] SB 150 (Allen, Chapter 646, Statutes of 2017).

[26] California Air Resources Board. *2018 Progress Report: California's Sustainable Communities and Climate Protection Act*. November 2018. Available at: https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf.

Is New Development More Compact?

Acres Developed Per 1000 New Residents
Growth in Housing Units by Type
Housing Units Permitted by Structure Type
Agricultural Land Lost
Land Conservation

Are Daily Needs Accessible in Neighborhoods?

Access to Multiple Destinations
Access to Individual Destinations

Are Enough Affordable Housing Choices Available?

Vacancy Rate
Housing Cost Burden
Jobs-Housing Balance
Jurisdictions with a Certified Housing Element
Housing Units Permitted Compared to Regional Housing Needs Allocation (RHNA)
Housing Activity by Income Level
Units with Density Bonus or Inclusionary Deed Restrictions

Are Investments Shifting Toward More Sustainable Transportation Choices and Development?

Total Spending Planned in RTP, by Mode
Greenhouse Gas Reduction Fund Spending

Detailed information on the data used is in Appendix A. For comparison of select observed data metrics with future forecasts in regional SCSs, see Appendix B.

The 2022 report also expands reporting on metrics to understand equity in outcomes, in recognition that the status quo has significant repercussions for individuals, especially BIPOC, low-income, and underprivileged people. In this report, CARB staff conducted analysis of priority populations, including disadvantaged communities as designated per SB 535[27] and low-income communities as designated per Assembly Bill (AB) 1550[28] for the metrics of commute mode share, commute travel time by mode, and vehicle ownership to understand whether and how travel trends are changing for California's overburdened and underprivileged populations. This report also includes reporting on several metrics to track housing affordability and investment spending. Changing how California builds and connects communities to make it easier for people

[27] SB 535 (De León, Chapter 830, Statutes of 2012).
[28] AB 1550 (Gomez, Chapter 369, Statutes of 2016).

to afford homes in places where they have multiple convenient transportation choices for getting to jobs, services, recreational and open spaces, and education is an opportunity to address inequities and give all Californians broader access to what they need to thrive.

CARB asked MPOs, technical experts, and others who have been involved in SB 375 implementation to help identify both successful practices and challenges to achieving the targets, including regional best practices and the impact of recent State policies and funding. In addition to the required report elements, CARB includes proposed actions to help address the identified challenges, based on the feedback provided by these stakeholders through surveys, interviews, meetings, and workshop discussions.

This report distills this information beginning with a focused look at the critical question: *Is California meeting SB 375 climate goals?* It highlights what is happening on the ground, using data-supported indicators to help illustrate why goals are not being met. It then summarizes key efforts taken to support SCS implementation, as well as changes that regions are making to their SCS strategies since the 2018 Progress Report. Finally, the "Remaining Challenges and Need for Further Action" section discusses challenges, regional best practices, and impacts of State policies and funding on progress towards SB 375 goals, and it identifies actions that could help overcome identified challenges.

IS CALIFORNIA MEETING SB 375 CLIMATE GOALS?

HAVE GHGS FROM PERSONAL VEHICLE TRAVEL DECLINED?

California is still not reducing GHG emissions from personal vehicle travel as needed under SB 375. Per capita GHG emissions and per capita VMT continued to increase, though more slowly than in the 2018 Progress Report.

Californians continue to drive longer distances on average. Efforts to expand accessibility to destinations and non-auto travel choices have not reversed the rising trend in per capita GHG emissions and per capita VMT found in the 2018 Progress Report, and again in this 2022 Progress Report.[29] Increases are observed in nearly all MPO regions, though the rate of increase has slowed.

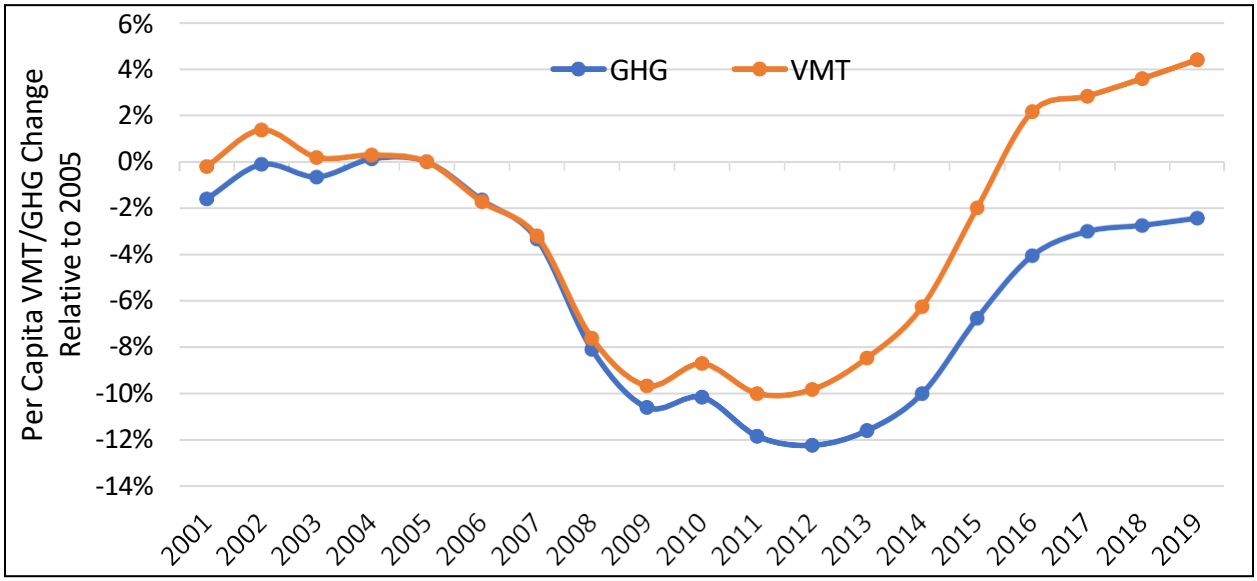
California's regional SB 375 targets are expressed as a percent change in per capita passenger vehicle GHG emissions relative to 2005 levels, with goals set for milestone years 2020 and 2035.[30] Combined across regions, SB 375 climate targets aim to

[29] California Air Resources Board. *2018 Progress Report: California's Sustainable Communities and Climate Protection Act*. Available at: https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf

[30] GHG emissions considered under the SB 375 program reflect carbon-dioxide (CO2) emissions only from light-duty passenger vehicles traveling within California's 18 MPO regions.

achieve about a 19 percent reduction in per capita GHG from personal vehicle travel statewide by 2035, relative to 2005. Figure 1 shows the latest statewide data.[31,32]

Figure 1. Light-Duty VMT and GHG Per Capita Relative to 2005 (California's 18 MPO Regions Aggregated)[33]



2019 data indicate that nearly all regions were far from achieving 2020 targets set by CARB.

For this report, CARB developed a method to estimate each region's progress toward the SB 375 regional targets set in March 2018 as described in Appendix A.[34, 35]

[31] Data beyond 2019 was not available for this analysis.

[32] The notable downturn in VMT and GHG in the middle years in this analysis has not been persistent and was not of the scale needed to create durable change. It coincided with several external changes in the economy and transportation system, including a major economic downturn and recovery. Many factors influence light-duty VMT and GHG trends. This report focuses on related efforts and progress in transportation, land use and housing factors, however, other factors such as the economic recession and recovery, as well as the rise in transportation network companies (TNCs) have parts in influencing light-duty VMT and GHG trends.

[33] Ibid.

[34] For more information on updated targets approved by CARB in March 2018 see: California Air Resources Board. February 2018. Updated Final Staff Report Proposed Update to the SB 375 GHG Emission Reduction Targets. Retrieved from https://www.arb.ca.gov/cc/sb375/sb375_target_update_final_staff_report_feb2018.pdf.

[35] In the SB 375 program, CARB estimates GHG emissions by converting changes in estimated VMT. VMT is used for estimation because all SCS plans anticipate progress via passenger VMT reduction. CARB converts VMT into CO2 emissions using its emissions factor (EMFAC) model that reflects the vehicle fleet mix and the fuel efficiency of different vehicles, vehicle speeds, and other factors that

Table 1 shows the change in GHG per capita between 2005 and 2019 alongside each region's SB 375 targets for 2020 and 2035. To date, the largest reductions in per capita GHG and VMT are in the TRPA, SBCAG, and SACOG regions, and the largest increases in per capita GHG relative to 2005 are in the KCAG and TCAG regions.[36]

Table 1. Comparison of 2019 GHG Per Capita Levels to SB 375 Targets by Region[37]

MPO	CARB Estimated Change in GHG per Capita 2005-2019 (%)	2020 SB 375 GHG Reduction Target (%)	2035 SB 375 GHG Reduction Target (%)
Four Largest MPOs			
MTC/ABAG (Bay Area)	-1%	-10%	-19%
SACOG (Sacramento)	-5%	-7%	-19%
SANDAG (San Diego)	-3%	-15%	-19%
SCAG (Los Angeles)	-4%	-8%	-19%
San Joaquin Valley MPOs			
Fresno COG	0%	-6%	-13%
Kern COG	1%	-9%	-15%
Kings CAG	26%	-5%	-13%
Madera CTC	1%	-10%	-16%
Merced CAG	-4%	-10%	-14%
San Joaquin COG	-1%	-12%	-16%
Stanislaus COG	-3%	-12%	-16%
Tulare CAG	12%	-13%	-16%
Northern and Coastal MPOs			
AMBAG (Monterey Bay)	-4%	-3%	-6%
Butte CAG	1%	-6%	-7%
San Luis Obispo COG	-1%	-3%	-11%
Santa Barbara CAG	-6%	-13%	-17%
Shasta RTA	0%	-4%	-4%
Tahoe RPA	-10%	-8%	-5%

influence GHG emissions. In measuring progress under SB 375, statute directs CARB to set targets for SB 375 considering the changes in GHG emissions reductions resulting from improved vehicle emission standards, changes in fuel consumption, and other measures that will reduce GHG emissions, and therefore CARB excludes GHG emissions reductions from State policies and regulations such as the Advanced Clean Cars Program to ensure those benefits are additional.

[36] While data shows California was not on track through 2019, it is likely that many regions met their GHG reduction targets in 2020 due to the steep decline in travel activity related to the COVID-19 pandemic. However, while long-term changes are uncertain, data show passenger VMT has steadily climbed back up and is now closing in on pre-pandemic levels and transit ridership, which was also heavily affected during the lockdown months, has not recovered at the same pace as VMT.

[37] In 2019, the four largest MPO regions together account for 81 percent of the statewide light-duty VMT and 82 percent of population; the eight San Joaquin Valley MPO regions account for 11 percent of the statewide light-duty VMT and 11 percent of population; the six coastal and northern California MPO regions account for 5 percent of statewide light-duty VMT and 5 percent of population; non-MPO regions account of the remaining 3 percent of statewide VMT and 2 percent of population.

COVID-19 PANDEMIC: FUTURE IMPACTS ON TRANSPORTATION AND LAND USE REMAIN UNCERTAIN

The lasting effects on land use and transportation from the COVID-19 pandemic remain largely uncertain, but some agencies are adapting their strategies. Although MPO regions have not completely shifted strategies in their plans in reaction to the pandemic, they have been positioning their policies to more strategically weather uncertainty.

Transit: California was generally seeing a decline in transit ridership[38] prior to the pandemic, and the pandemic has greatly accelerated the decline (see "What is happening on the ground?" below).[39] However, California has seen some promising demonstrations of paths toward transit recovery especially as transit agencies responded to the pandemic. Notably, some transit agencies have eliminated fares and reoriented service to prioritize underserved and low-income communities.[40]

One example is when LA Metro stopped collecting fares in response to plummeting ridership during the pandemic, effectively creating the biggest free transit program in United States history. Between April 2020 and December 2021, the agency saw a recovery of ridership within 10 to 15 percent of pre-pandemic numbers with an estimated 821 million fare-free boardings.[41]

Another example is that the San Joaquin Regional Transit District expanded its on-demand rideshare pilot countywide right before the pandemic and was able to maintain service with some modifications to routes throughout the pandemic.[42,43] This effort shows how transit service can be creative and flexible to meet transportation needs and reduce VMT in more rural regions. As we plan for transit in a post-pandemic world, it will be important for transit agencies to design services that better support diverse populations in ways that are sensitive to the user experience based on

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[38] Taylor, B. D; Blumenberg, E.; Wasserman, J. L; Garrett, M.; Schouten, A.; King, H., et al. (2020). *Transit Blues in the Golden State: Analyzing Recent California Ridership Trends*. UC Office of the President: University of California Institute of Transportation Studies. Retrieved from https://escholarship.org/uc/item/32j5j0hb

[39] Matson, G., McElroy, S., Lee, Y., & Circella, G. (2021). *Longitudinal Analysis of COVID-19 Impacts on Mobility: An Early Snapshot of the Emerging Changes in Travel Behavior*. UC Davis: 3 Revolutions Future Mobility Program. Retrieved from https://escholarship.org/uc/item/2pg7k2gt

[40] American Public Transportation Association. (2021, November 9). *On the Horizon: Planning for Post-Pandemic Travel*. https://www.apta.com/news-publications/press-releases/releases/on-the-horizon-planning-for-post-pandemic-travel/

[41] Walker, A. (2022, January 19). *L.A. Just Ran (and Ended) the Biggest Free-Transit Experiment in the U.S.* Curbed. https://www.curbed.com/2022/01/los-angeles-metro-free-transit-buses.html

[42] San Joaquin Regional Transit District. (2020, January 8). *Press Release: RTD Reinvests Van Go! As a True Countywide Service.* https://sanjoaquinrtd.com/wp-content/uploads/bsk-pdf-manager/2021/01/RTD-Reinvents-Van-Go-as-a-True-Countywide-Service.pdf

[43] San Joaquin Regional Transit District. (n.d.) Modified Service Change. https://sanjoaquinrtd.com/modified-service-change/

race and gender,[44, 45] and to optimize fixed route services with innovative solutions that improve efficiency.[46]

Remote Work: Many employers had to make the immediate shift to remote work following stay-at-home orders and invested in supportive technology. It is anticipated that commute-related VMT will be lower per capita, as some employees will work remotely permanently post-pandemic. However, remote work has generated new and different discretionary vehicle trips,[47] and traffic levels have been slowly rising toward pre-pandemic levels despite elevated amounts of remote work, [48] reinforcing the need for other strategies to reduce overall VMT.

As regions pursue SCS strategies around working from home, telehealth, and e-commerce, there is a need for additional investment to expand and modernize broadband infrastructure and to provide computing devices. Californians use the internet for a range of activities, including financial services (70 percent), telehealth (42 percent), telecommuting (39 percent), job searches (21 percent), and online classes or job training (21 percent).[49] While the pandemic shifted many activities online, and a record high percentage of Californians (84 percent) had high-speed internet at home in 2019, up from 74 percent in 2017,[50] broadband subscription rates are lower among adults 65 and older (82 percent), as well as among rural (73 percent), low-income (76 percent), and less-educated (80 percent) households.

Furthermore, in 2019, more than 1 in 10 Californians did not have a desktop, laptop, or other computing device at home. Device access was especially limited among low-income (22 percent), rural (19 percent), less-educated (19 percent), African American (20 percent), and Latino (20 percent) households.[51] Notably, nearly 200,000

[44] Schmidtt, A. (2019, August 29). *How Our Transport System is Biased Against Women,* Streetsblog. https://usa.streetsblog.org/2019/08/29/all-the-ways-u-s-transport-system-is-biased-against-women/
[45] Badstuber, N. (2019, October 29). *Mind the Gender Gap: The Hidden Data Gap in Transport.* London Reconnections. https://www.londonreconnections.com/2019/mind-the-gender-gap-the-hidden-data-gap-in-transport/
[46] Perlumtter, D. (2020, July 16). *The Future of the Fixed Route Bus in a Post-COVID-19 World*. Via. https://ridewithvia.com/resources/articles/the-future-of-the-fixed-route-bus-in-a-post-covid-19-world/
[47] Matson, G., McElroy, S., Circella, G., & Lee, Y. (2021). *Telecommuting Rates During the Pandemic Differ by Job Type, Income, and Gender.* UC Davis: National Center for Sustainable Transportation. http://dx.doi.org/10.7922/G2445JT6 Retrieved from https://escholarship.org/uc/item/5f46r97r
[48] Bureau of Transportation Statistics. Daily Vehicle Travel During the COVID-19 Public Health Emergency. Passenger VMT by State. California April 2020-Jun 2021. https://www.bts.gov/covid-19/daily-vehicle-travel
[49] Ibid.
[50] Public Policy Institute of California, California's Digital Divide: California's Digital Divide - Public Policy Institute of California (ppic.org). February 2021.
[51] Ibid.

households with school-age children (7 percent) did not have home access to a device.[52]

Unemployment and Housing: Some employment sectors were severely disrupted by the pandemic, contributing to a rise in unemployment.[53] California entered the pandemic in a housing crisis, which was then exacerbated by the pandemic's employment loss and resulting housing insecurity.[54] Housing costs and competition for housing remain high in the state. At the same time the explosion of remote work has encouraged many office employees to move farther away from urban centers. This has impacted commuting patterns, as well as further exacerbated the affordability crisis due to an influx of higher-income residents in previously affordable communities. This suggests a continued need to support access to daily needs within communities for people who are not commuting like they used to, as well as opportunities for adaptive reuse of job centers that now have higher commercial vacancy rates to help meet housing demand.

Innovations That Support Active Transportation: As the pandemic shifted the way people interact with each other, it also shifted the uses of public space. Many cities quickly redesigned streets to provide space for socially distant essential travel and exercise during the pandemic. [55] Some California communities reallocated vehicle travel lanes and parking lanes in restaurant districts and commercial corridors to make pedestrian-only areas to maximize outdoor distancing and help local businesses.[56,57] Some cities are now working to implement longer-term improvements, like the City of Oakland, which is phasing out temporary street closures to make slow streets a permanent part of the community.[58] Communities could continue to enhance the public realm by repurposing streets to support safe, equitable, and health-promoting public spaces that encourage walking, rolling, and cycling.

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[52] Ibid.

[53] Sean M. Smith, Roxanna Edwards, and Hao C. Duong, "Unemployment rises in 2020, as the country battles the COVID-19 pandemic," Monthly Labor Review, U.S. Bureau of Labor Statistics, June 2021, https://doi.org/10.21916/mlr.2021.12.

[54] Benfer, E. A., Vlahov, D., Long, M. Y., Walker-Wells, E., Pottenger, J. L., Jr, Gonsalves, G., & Keene, D. E. (2021). Eviction, Health Inequity, and the Spread of COVID-19: Housing Policy as a Primary Pandemic Mitigation Strategy. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, *98*(1), 1–12. https://doi.org/10.1007/s11524-020-00502-1

[55] National Association of City Transportation Official. Streets for Pandemic Response and Recovery. June 2020. https://nacto.org/wp-content/uploads/2020/09/Streets_for_Pandemic_Response_Recovery_Full_20-09-24.pdf

[56] National Association of City Transportation Official. Streets for Pandemic Response and Recovery. June 2020. https://nacto.org/wp-content/uploads/2020/09/Streets_for_Pandemic_Response_Recovery_Full_20-09-24.pdf

[57] County of Los Angeles Public Works. Outdoor Dining – COVID-19 Temporary Outdoor Dining Program. https://pw.lacounty.gov/outdoor-dining/

[58] City of Oakland. Oakland Slow Streets – Essential Places. https://www.oaklandca.gov/projects/oakland-slow-streets

WHAT IS HAPPENING ON THE GROUND?

The answer to the question of why SB 375-related GHG emissions are rising or declining is complex, like California's transportation and land use system itself. CARB staff investigated transportation choices, land conversion, housing production, accessibility to destinations, and other factors at the state and regional levels to provide insight into some of the issues affecting GHG emissions.

HAVE TRANSPORTATION CHOICES AND TRAVEL PATTERNS CHANGED TOWARD LOWER EMISSION OPTIONS?

To understand more about what has happened on the ground and gather insight into why per capita GHG emissions and per capita VMT continue to increase, CARB reviewed data on travel choices and transportation choice availability. The results are summarized here.

In general, Californians continue to drive more, primarily on their own. In 2019, around 75 percent of California's commuters drove alone to work. From 2005 to 2019, the drive-alone rate for commute trips remained flat or rose in most regions, with the highest rates observed in the San Joaquin Valley MPO regions. CARB observed notable exceptions in the MTC/ABAG, SANDAG, AMBAG, SBCAG, and SLOCOG regions where the share of driving decreased from 2005 to 2019. To review data trends by MPO region, see Appendix A.

California has continued to expand roadways. Total interstate and principal arterial lane miles in California increased from 58,258 in 2016 to 61,376 in 2019, or 5.4 percent. While roadway expansion can occur for several reasons (e.g., to accommodate cars, freight, safety, carpooling, bus on shoulders), the research shows that investing in added roadway capacity often induces additional VMT and GHG emissions.[59] The SCAG and MTC/ABAG regions added the most in total lane miles, while the KCOG, MCAG, and SACOG regions had the highest per capita lane mile increases from 2016 to 2019.

Household vehicle ownership is increasing. A steady increasing trend of household vehicle ownership is observed in all MPO regions. For all MPO regions, the average household vehicle ownership in priority population households is lower than the region's average, and the rate of vehicle ownership increased faster for priority populations from 2010 to 2019.

Transit ridership in most MPO regions has decreased since 2005, with a sharp decline in all regions due to the COVID-19 pandemic. While the amount of transit

[59] S. Handy, M. Boarnet. 2014. Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions. Available at: https://ww2.arb.ca.gov/sites/default/files/2020-06/Impact_of_Highway_Capacity_and_Induced_Travel_on_Passenger_Vehicle_Use_and_Greenhouse_Gas_Emissions_Policy_Brief.pdf

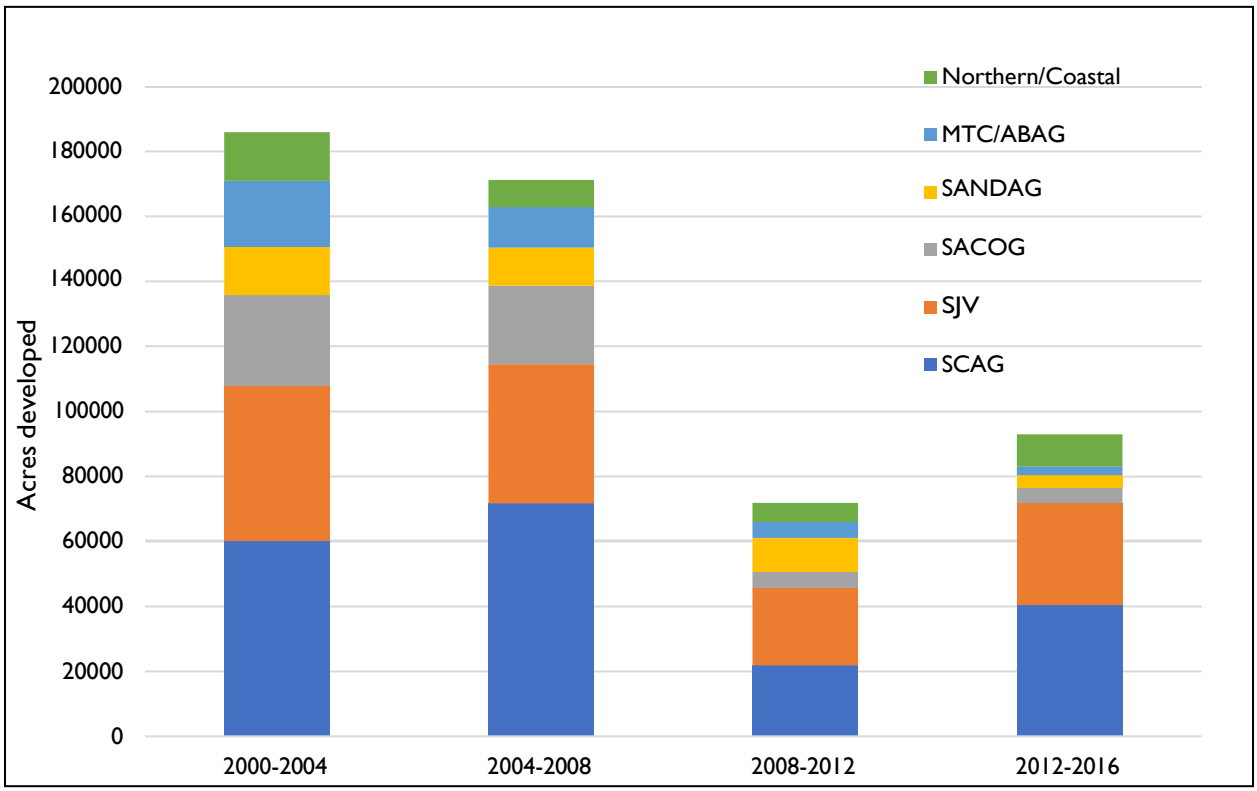
service supplied, as measured by revenue service hours, either remained steady or grew in most regions between 2005 and 2019, transit ridership in most MPO regions decreased during the same period, especially since 2014. CARB observed notable exceptions, with increases in transit boardings between 2005 and 2019 in the SJCOG and SLOCOG regions. However, all MPO regions experienced a sharp decline in both transit boardings and revenue hours in 2020 due to the pandemic.

IS NEW DEVELOPMENT MORE COMPACT?

One way to reduce the need to drive long distances is to build homes, jobs, and other key destinations closer together. CARB examined metrics to assess whether overall land use development patterns were becoming more compact and decreasing growth in greenfield areas. CARB looked at newly developed acres per resident, the amount of agricultural land converted to development, and the amount of land conserved for open space, which are often part of a region's SCS land use strategies. The results are summarized here.

California's recent growth has become more compact than in the past, but there is variation across regions about how well the land use projections in SCSs align with the current trends. Local agencies make land use decisions, including decisions that allow new commercial or residential areas to be built on land that was previously rural or undeveloped. Statewide the number of acres being urbanized has decreased considerably compared to the 2004-2008 period, as shown in Figure 2.

Figure 2. Land Newly Urbanized[60,61]



In part, this reflects lower levels of development, such as a decline in home construction (Figure 4), as well as land being used more efficiently (Figure 3). Overall development has become more compact since 2005,[62] with the average amount of land being newly urbanized for each new resident declining over time (Figure 3). However, the pattern differed substantially between rural and urban regions. New development in the four largest MPO regions[63] has increased in compactness substantially since 2005, while in the San Joaquin Valley MPO regions, it has become less compact. To review individual data trends by MPO region, see Appendix A.

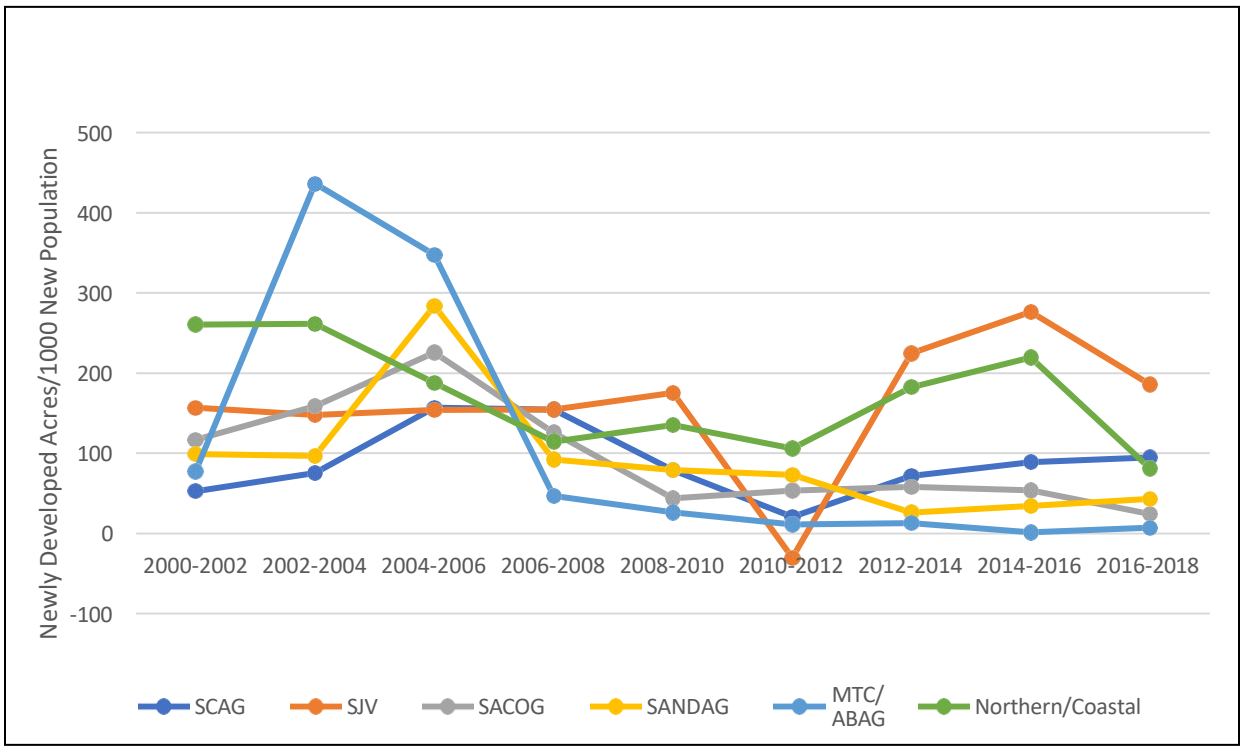
[60] For this analysis, urbanized land is occupied by an average of at least 1 structure per 1.5 acres, or approximately 6 structures for every 10 acres, and is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, or other developed purposes.

[61] "Northern/Coastal" includes the following MPO regions: AMBAG, BCAG, SBCAG, SRTA, TRPA, and TCAG; "SJV" includes the following MPO regions: FCOG, KCOG, KCAG, MCTC, MCAG, SJCOG, StanCOG, and TCAG

[62] This was measured as newly developed acres/1000 new residents.

[63] The four largest regions are MTC/ABAG, SCAG, SACOG and SANDAG.

Figure 3. Total Newly Developed Acreage Per 1,000 New Residents



The SCSs for the four largest MPO regions assumed land consumption that aligns with the trend over the last decade. However, a few SCSs in the San Joaquin Valley region and Northern/Coastal regions assumed growth patterns would be more compact than what has occurred over the last decade. If barriers to infill development continue, it may be challenging for those regions to achieve the land use pattern assumptions included in their SCSs. To compare trends to SCS assumptions, see Appendix B.

California's current housing stock is comprised mostly of single-family, large-lot homes, which do not meet California's diverse housing needs and are not consistent with SCS assumptions around increasing multi-family housing, smaller homes on smaller lots, and transit-oriented housing. This historical practice arises from a range of causes, including significant race-based redlining and exclusionary practices, but reforms have begun.

Since 2017, permits for more compact housing types such as multi-family and accessory dwelling units (ADUs) have grown statewide and there are continuing policy efforts at many levels of government to legalize more dense and affordable housing in California communities. For example, in just five years, California experienced nearly a 10-fold increase in permitted ADUs due to statewide legislative changes. Trends in home types being constructed vary considerably by region. In the most urban regions—MTC/ABAG, SCAG, and SANDAG—annual housing unit growth has been rebounding since the 2008 housing crisis, with a clear trend of more new

multi-family units than single-family units. SACOG and the San Joaquin Valley MPO regions show a different trend with single-family detached units making up most homes being constructed. Housing unit growth in the San Joaquin Valley MPO regions also differs from more urban regions as it has not shown a rebound trend since 2008, with annual new housing unit numbers remaining steadily low across the last decade. Housing growth patterns in the remaining Northern and Coastal California MPO regions varied. For example, the AMBAG region shows an increasing proportion of single-family unit growth over the last decade, while the SBCAG region has started to build more new multi-family units. The BCAG and SRTA regions are unique cases showing total housing losses in 2019, primarily due to wildfire tragedies.

Data for the most recent period available (2012-2016) suggests agricultural land loss may be on the rise in some MPO regions. Total losses of agricultural land during the 2012-2016 period were greatest in the SCAG, KCOG, and FCOG regions. Data are not available for all regions to understand what these lands are ultimately being used for and whether uses are posing a risk to the regions' abilities to achieve the sustainable development patterns assumed in their SCSs. While stakeholders have noted that State groundwater regulations have contributed to agricultural lands being taken out of use, the data do not make clear what is happening with those lands.

The acreage of protected natural and working lands has been slowly and continuously increasing in most MPO regions. Protecting natural and working landscapes can help keep growth in existing developed areas, which is generally supportive of SCS strategies. This land can be conserved by a non-profit group or government agency via ownership of either the land itself or a conservation easement preventing its development. Between 2014 and 2021, the total acres conserved have steadily increased except in the StanCOG region. The largest increases in permanently conserved land in this period occurred in the MTC/ABAG, SACOG, and SBCAG regions.

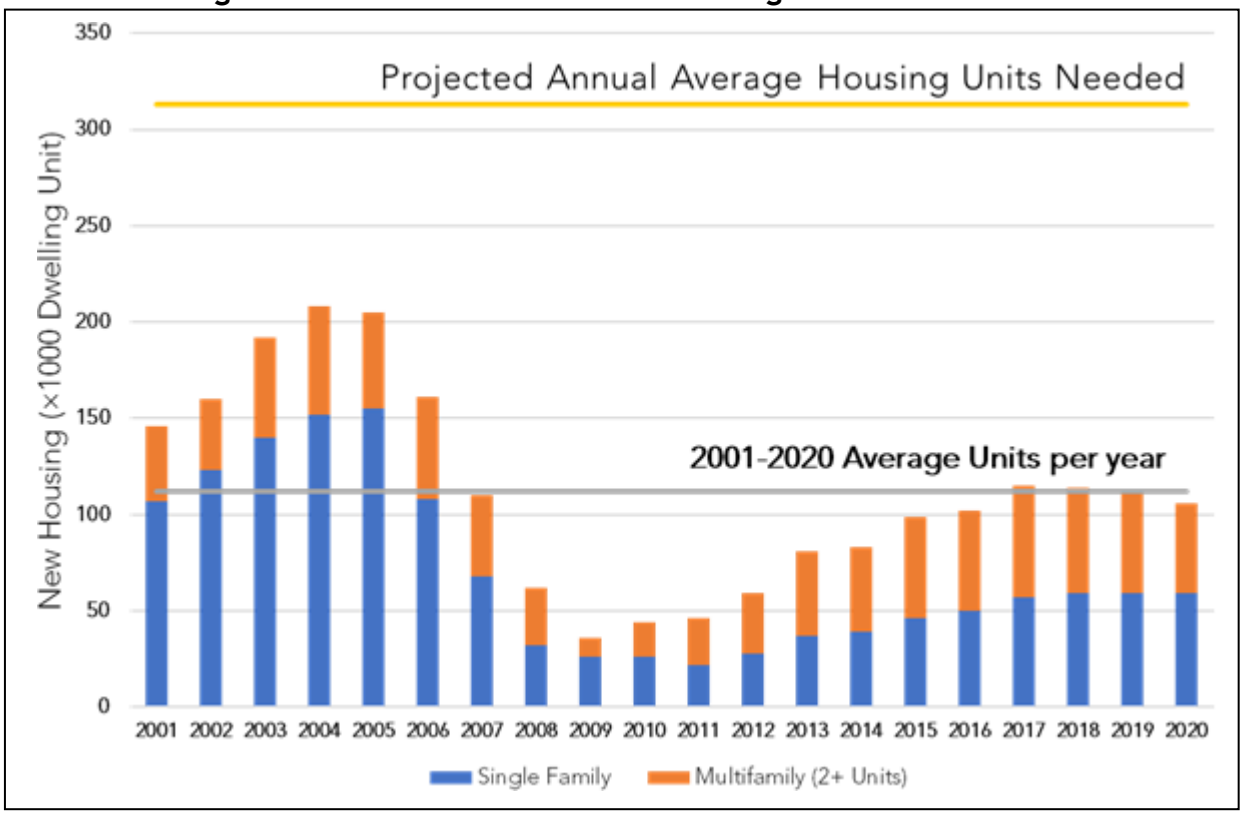
ARE ENOUGH AFFORDABLE HOMES BEING BUILT?

Implementation of SCSs requires work to address the continued housing crisis and the history of racial injustice that is entwined with California's development patterns and policies. When people cannot find homes they can afford near jobs and other essential destinations, they may have to live in more remote locations and travel longer distances. This impacts not only VMT and climate but also the health, well-being, and household budgets of many Californians in ways that continue patterns of racial injustice. CARB reviewed housing data to assess how well housing goals are being met in each region.

Housing unit production continues to fall short of projected housing demand. As shown in Figure 4, statewide annual growth in housing units has remained below 100,000 homes. According to the California Department of Housing and Community Development (HCD), approximately 2.5 million new housing units are needed over the next eight-year housing needs cycle (RHNA) to meet projected population and

household growth.[64] While most localities have certified fifth cycle housing elements, the number of homes permitted and built were significantly lower than housing need allocations and the housing construction assumed in SCSs, especially for affordable housing (e.g., very low- and low-income housing units).

Figure 4. Net Growth in Annual Housing Units in California



Of new housing constructed, more above moderate-income housing is being permitted and built than any other housing type, whereas the greatest need is for very-low and low-income housing. This mismatch between demand and supply further contributes to already high and inequitable housing cost burdens for lower-income groups. While housing unit production is the role of local agencies and the development community, some MPO regions have started implementing funding and technical assistance actions to support strategies such as permit process streamlining. To review individual data trends by MPO, see Appendix A.

This report focuses on tracking data against the fifth cycle housing elements, as many sixth cycle housing elements are currently underway and are not yet certified. Sixth

[64] Statewide Housing Plan, CA Dept of Housing and Community Development (2022): https://storymaps.arcgis.com/stories/94729ab1648d43b1811c1698a748c136 (accessed 04/12/2022)

cycle housing elements include increases in the number of housing units that jurisdictions must plan for. California must plan for more than 2.5 million homes over the sixth cycle, more than double the housing planned for during the fifth cycle. As a result, local agencies are considering a variety of strategies to identify and include adequate development sites in their sixth cycle housing elements. Sixth cycle housing elements will also respond to new requirements to affirmatively further fair housing (AFFH) under AB 686.[65] Looking ahead, these new strategies, such as increased reliance on ADUs and more proposals to facilitate residential development in existing commercial zoning districts, may affect future housing development.

Use of density bonus[66] and inclusionary deed restrictions to build affordable housing varies across regions. These affordable housing policy tools may make development more financially feasible, add to the overall number of housing units, and increase the supply of affordable units. They are primarily effective in strong-market areas where there is demand for additional density that makes the incentive to provide affordable housing attractive. Areas of the state with weaker markets will have less uptake of these tools. Data show that the SCAG and MTC/ABAG regions use these mechanisms to achieve the greatest number of new housing units. Of the San Joaquin Valley MPO regions, FCOG has the highest number of density bonus units, followed by KCOG and TCAG. MCAG has the greatest number of inclusionary units, followed by FCOG and SJCOG. The MCTC and StanCOG regions both have no new density bonus or inclusionary units. Among the remaining Northern and Coastal MPO regions, AMBAG and SLOCOG have the most density bonus and inclusionary units, while BCAG has none.

ARE DAILY NEEDS ACCESSIBLE IN NEIGHBORHOODS?

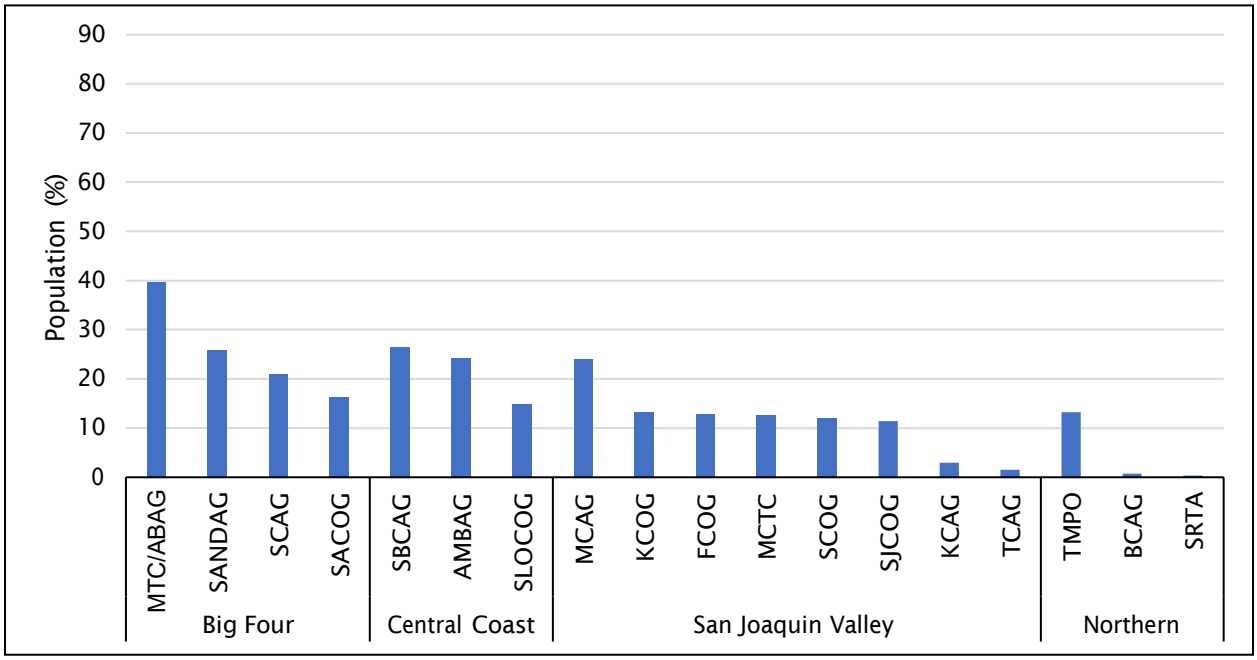
CARB also analyzed whether overall land use development patterns were creating communities with good accessibility to key destinations. When people live closer to key destinations, they do not need to travel as far and may not need to use a vehicle for some trips, which reduces VMT and GHG emissions. New to this report cycle, CARB measured the percent of people who have access to four key destinations—a park/open space, an educational facility, a transit stop, and a grocery store—within 15 minutes by walking or other pedestrian travel, assuming a 3 mile per hour travel speed. While the concept of 15-minute neighborhoods is neither an explicit State nor regional goal, this metric was selected to provide a starting place for discussing the importance of access to destinations in reducing driving.

[65] AB 686 (Santiago, Chapter 958, Statutes of 2018).

[66] A density bonus is an increase in the overall number of housing units that a developer may build on a site in exchange for including more affordable housing units in the project. The California State Density Bonus Law (Government Code Section 65915) offers development incentives to projects that provide on-site affordable housing.

Less than half of the population in every region can access all four key destinations within a 15-minute walk.[67] Figure 5 shows the variation between MPO regions by the percentage of people who have access to the four key destinations.

Figure 5. Percentage of Population with Access to All Four Key Destinations (Park/Open Space, Educational Facility, Transit Stop, Grocery Store) Within a 15-Minute Walk[68]



For most MPO regions, transit stops are the most accessible amongst all four key destinations. Of the four key destinations, people had the least access to grocery stores, with exceptions in a few MPO regions. In each MPO region the percentage of population with access to individual destinations is higher than for the four destination types combined. For example, in the SCAG region 75 percent of residents have access to the nearest transit stop within 15 minutes by foot, while only 38 percent of residents have access to the nearest grocery store within 15 minutes by foot and only 26 percent of residents in the SCAG region have access to all four key destinations within 15 minutes by walking. To review data trends by MPO region, see Appendix A.

[67] References to walking are also intended to include other active means of travel, such as wheelchair travel, that occur at a similar pace (assuming a speed of three miles per hour).
[68] Ibid.

WHAT OTHER FACTORS MAY HAVE AFFECTED PERSONAL VEHICLE TRAVEL?

It is important to acknowledge that other factors determined at the macro level, such as gas prices and employment, also impact personal vehicle travel and its associated GHG outcomes. These factors are not about whether an agency implements a strategy, but do factor into people's travel behavior and affect achievement of the regional targets.

Both gas prices and employment have continued to change over time with considerable variability since 2005. From January 2005 to January 2019,[69] California gas prices rose from $2.02 per gallon to $3.24 in nominal dollars. In 2019 constant dollars, this translates to an increase from $2.81 to $3.24 per gallon, or a $0.43 per gallon increase in 14 years, indicating that fuel prices, a major component of out-of-pocket cost people pay to drive, have remained low compared to the rise seen as of 2022.[70]

During the same period, California unemployment trends also had ups and downs, with a steady decline from the height of unemployment in 2010 into 2019, to hit the lowest levels experienced since 2005. Total available jobs during this time period followed a similar trendline for most regions in the state, where MTC/ABAG experienced the most significant job increase rate since 2005, followed by San Joaquin Valley MPO regions such as the KCOG, MCAG, SJCOG, and TCAG regions. Lower unemployment and greater job opportunities have typically meant an increased demand for commute travel.

However, more recent events may change how these factors influence achievement of the targets in the future. For example, the "COVID-19 Pandemic: Future Impacts on Transportation and Land Use Remain Uncertain" section of this report highlights potential changes to the relationship between employment trends and commute travel. Furthermore, as of April 2022,[71] the price of gas in California has jumped to $5.69 per gallon in nominal dollars, which, if a lasting trend, would be one of the most significant changes to the cost of driving seen since 2005.

WHAT HAS BEEN DONE THAT SUPPORTS IMPLEMENTATION?

Since the 2018 Progress Report, there have been several key State transportation and housing policy developments with implications for SB 375. While it is too early to know

[69] U.S. Energy Information Administration, https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=emm_epm0_pte_sca_dpg&f=m.
[70] In April 2022, California gas prices reached $5.69 in nominal dollars. In 2019 constant dollars, this translates to $5.06 per gallon, or a $2.25 per gallon increase from 2005 levels.
[71] Ibid.

what their ultimate impact on SCS implementation will be, this section identifies key State initiatives that provide opportunities to support SCS implementation.

CALIFORNIA ACTION PLAN FOR TRANSPORTATION INFRASTRUCTURE

In July 2021, the California State Transportation Agency (CalSTA) adopted the first Climate Action Plan for Transportation Infrastructure (CAPTI), which implements a key recommendation from the *2018 Progress Report* to better align State transportation funding programs with climate goals. CAPTI builds on executive orders signed by Governor Gavin Newsom in 2019[72] and 2020[73] targeted at reducing GHG emissions in transportation, and details an investment framework with strategies and actions on how the State should invest billions of dollars of transportation funding where State agencies play a role in project selection or nomination. Under CAPTI, the State will invest competitive transportation funding in infrastructure projects that advance sustainable, equitable, and healthy modes of transportation such as walking, biking, and transit, as well as accelerate the transition to zero-emission vehicle technology. CAPTI will guide decision-making around key funding sources that are available to support implementation of SCS strategies, including, but not limited to, the Transit and Intercity Rail Capital Program (TIRCP), the State Highway Operations and Protection Program, the Active Transportation Program (ATP), the Solutions for Congested Corridors Program, and the Local Partnership Program.

For each action included in CAPTI, the plan designates a lead agency responsible for its implementation and identifies short-term (0-2 year) and medium-term (3-7 year) implementation timelines. CalSTA anticipates releasing the first CAPTI Annual Report on implementation progress in fall 2022.

CAPTI focuses on administrative actions the State can take and considers State discretionary funding programs for transportation infrastructure, which make up a portion of all transportation funding in California. The principles of CAPTI could be extended to apply to a broad range of programs.

AB 285 REPORT – ASSESSING REGIONAL TRANSPORTATION PLANS AND PROJECTS FOR ATTAINING STATE GOALS

In February 2022, the Strategic Growth Council (SGC) submitted its *California Transportation Assessment* report to the State Legislature, pursuant to AB 285.[74] The report describes opportunities to better align transportation funding programs with the State's climate goals. The report demonstrates that California governments have a

[72] Executive Order N-19-19: https://www.gov.ca.gov/wp-content/uploads/2019/09/9.20.19-Climate-EO-N-19-19.pdf
[73] Executive Order N-79-20: https://www.library.ca.gov/wp-content/uploads/GovernmentPublications/executive-order-proclamation/40-N-79-20.pdf
[74] AB 285 (Friedman, Chapter 605, Statutes of 2019).

major opportunity to review and re-prioritize the often decades-old projects in the "pipeline" for funding, projects which often reflect planning ideas from decades prior. To meet its current and future goals, California cannot keep building highway and road-widening projects devised years ago. The report shows that funding and planning agencies have discretion to re-prioritize the pipeline, which is an immediate opportunity for change.

Key findings from the report are summarized here.

- The "transportation system" in California is the result of plans and projects funded and implemented across federal, State, regional and local agencies. About half of the approximately $30 billion in annual expenditures take place at the local level (i.e., local governments, transportation agencies, and transit systems).
- There are examples of significant progress towards alignment of climate and equity goals in transportation. This includes regional plans that identify major transit investments, propose equitable pricing strategies, and imagine an expanded role for regional agencies in supporting housing. It also includes state investment in High-Speed Rail, the Affordable Housing and Sustainable Communities Program (AHSC), the TIRCP, and the Low Carbon Transit Operations Program (LCTOP). However, these programs represent a very small percentage of total transportation and housing funding.
- But there is a gap between the vision for a more climate friendly and equitable transportation system, on the one hand, and actions and infrastructure spending decisions, on the other.
- There is a need to reevaluate project and program funding and review the current transportation project pipeline to ensure projects align with the State's goals, deliver long-term benefits for Californians, and reduce harms to burdened communities. Transportation planners have substantial discretion to realign their portfolios to ensure that projects meet State goals.
- The institutional structure for transportation is complicated and decision-making levers can be disparate or hard to pinpoint.
- The State has numerous transportation plans, many of which do not align with each other.
- Institutions such as MPOs, among others, have been given key responsibilities for meeting climate and equity goals but do not have the appropriate levers to fulfill those responsibilities.

In response to the report's findings, SGC anticipates further work with the Legislature and others to develop implementation actions on the following five topic areas:

- Aligning existing funding programs with State goals
- Updating and better aligning existing State and regional plans, including modifications to the California Transportation Plan

- Reevaluating project and program funding and reviewing the current transportation project pipeline
- Assessing the roles of State transportation institutions
- Assessing MPO and local government roles and responsibilities, including actions that accelerate successful implementation of adopted regional plans.

SGC is managing a stakeholder process to gather feedback on key findings and potential recommendations on the five topic areas above and will produce a summary report in 2022.

CALIFORNIA AIR RESOURCES BOARD – CLEAN TRANSPORTATION INCENTIVES

CARB is one of several agencies in California state government whose incentive programs can also support change in this area. CARB's board has recognized that its incentive programs can help transform the transportation system as a whole, and this work remains a strong priority.[75] This section briefly outlines some of these important programs.

Clean Mobility Investments

CARB's clean mobility investments have funded clean and shared transportation services, such as public transit, electric carshare, bikeshare, and electric shuttles, that meet community-identified needs and increase access to key destinations while reducing GHG emissions and VMT. CARB has allocated $149.4 million for clean mobility investments since fiscal year 2014-15 and anticipates another $419 million in the coming years.

CARB's Regional Clean Mobility Pilots are one specific category of funding that make up clean mobility investments, which include multiple innovative carsharing and mobility options projects, and which serve as a foundation for understanding the clean mobility landscape and investment opportunities in communities. Some examples are OurCommunity Car Share in Sacramento, BlueLA Car Share, Ecosystem of Shared Mobility and Valley Air Zero Emission Vehicle (ZEV) Mobility pilots in the San Joaquin Valley, and the Mobility Hubs in Affordable Housing project in the Bay Area. CARB has allocated $17.3 million so far, in addition to $6 million for an Agricultural Worker

[75] CARB Board Resolution 21-24 (Nov. 19, 2021) (finding that "more work needs to be done to reduce vehicle miles travelled by providing better transportation choices and improved planning to reduce vehicle use, and hence air pollution, and the California Surface Transportation Agency's Climate Action Plan for Transportation Infrastructure further recognizes these needs, and such measures and direction can be supported in the proposed FY 2021-22 Funding Plan, which includes programs funding transportation planning with a focus on equity, electric bicycles, and other measures supporting transportation choice, which could be expanded in future years").

Vanpools pilot project, to meet specific mobility needs of rural communities, and anticipates another $10 million in the coming years.

CARB's more recent clean mobility programs include the Clean Mobility Options Voucher Pilot Program (CMO), Clean Mobility in Schools (CMIS), and Sustainable Transportation Equity Project (STEP).

CMO is a first-come, first-served voucher program for smaller, shared mobility services and community transportation needs assessments. CARB has allocated $47 million for this program so far and anticipates another $125 million in the coming years.

CMIS is a competitive grant program focused on the clean transportation needs of public school districts. CARB has awarded $35 million for this program so far and anticipates another $124 million in the coming years.

STEP is a competitive grant program with an overarching goal to increase transportation equity in disadvantaged and low-income communities by addressing community residents' transportation needs, increasing access to key destinations, and reducing GHG emissions and VMT. STEP funds a large suite of clean transportation, land use, and supporting projects intended to increase transportation equity. CARB has awarded $44.5 million for this program so far and anticipates another $124 million in the coming years.

Across its clean mobility planning and capacity building programs, CARB is working to address key lessons learned, including the need to streamline and simplify the application process, making it easier for under-resourced communities to access needed funding, as well as support universal payment across services and increased transit subsidies that promote multi-modal trips. Through this process, CARB can consider projects identified through community transportation needs assessments or other general planning efforts at the local level. [76]

Finally, the Electric Bicycle Incentives Project (EBIP) is a new pilot under development which aims to provide "on-the-saddle" rebates to reduce the purchase price for electric bicycles (e-bikes) to income qualified consumers. The pilot is designed to reduce GHG emissions and VMT by lowering barriers to e-bike ownership, helping

[76] Even CARB's car-based programs include mobility options. Clean Cars 4 All, for instance, provides incentives to help lower-income consumers living in priority communities replace old higher-polluting vehicles with newer and cleaner transportation such as a new or used hybrid, plug-in hybrid electric vehicle, or ZEV replacement vehicle. Clean Cars 4 All is administered in the five largest air districts in California: South Coast, San Joaquin Valley, Bay Area, Sacramento, and a new program in San Diego, with a statewide program upcoming to provide access to other areas of the state not currently eligible for district programs. Participants can choose an alternative mobility option such as an e-bike, a voucher for public transit, or a combination of clean transportation options allowed under the program in lieu of purchasing a replacement vehicle, which expands access and awareness of clean transportation.

people replace car trips with e-bike trips, promoting bicycle safety, and supporting local businesses. CARB anticipates $15 million in the coming years for this new pilot.

All of these clean transportation incentives can help support multimodal travel and SCS implementation.

REGIONAL EARLY ACTION PLANNING GRANTS 2.0 (REAP 2.0)

REAP 2.0, a $600 million investment program funded by State and federal sources, provides MPOs and other eligible applicants with funding to help implement and advance plans with an explicit focus on promoting implementation of SCSs. REAP 2.0 builds on the success of the 2019-2020 REAP 1.0 program but expands the focus by integrating housing and climate goals and allowing for broader planning and implementation investments, including infrastructure. The program, led by the HCD in collaboration with CARB, the Governor's Office of Planning and Research (OPR), and SGC, is explicitly intended to meet multiple objectives:

- Accelerating infill development that facilitates housing supply, choice, and affordability
- Affirmatively furthering fair housing
- Promoting coronavirus economic recovery
- Reducing vehicle miles traveled

REAP 2.0 is currently designed as a one-time funding program, and many have acknowledged that while needed to fill key project funding gaps, it does not fund all SCS project types. The program's funding source constraints leave many types of SCS transportation projects, which are an integral part of SCS implementation, ineligible. Further work will be needed to identify funding sources to help meet the original intent of providing regions funding to implement a flexible program as intended under REAP 2.0.

HOUSING REFORM AND INCENTIVES

Building on the 2017 legislative housing package, which provided critical funding for new affordable homes, tools to accelerate development to increase housing supply, and accountability provisions for cities to address housing needs in their communities, the Governor's 2022-2023 budget proposes $1 billion in one-time funds over two years, primarily focused on accelerated development of "downtown-oriented" areas across California. This investment will foster affordable housing development in climate smart areas as well as fund State tax credit and bond financing programs. Funding programs prioritized by the Newsom Administration support much-needed housing production in MPO regions. Funding "downtown-oriented" areas can be part of a package to incentivize development in locations that align with SCS land use assumptions and support implementation of RHNA.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA): TRANSPORTATION IMPACTS (SB 743)

SB 743[77] was passed in 2013, but only took effect in July of 2020. The law updated how transportation impacts are assessed in California for projects that undergo environmental review, focusing the assessment on VMT rather than traffic congestion (i.e., level of service, or LOS).

Before the changes brought about by SB 743, if a new project would make vehicle congestion worse, the project developer was required to mitigate that potential congestion, for example, by widening an intersection. The cost of mitigation often acted as an incentive to build in outlying areas where there was little concern about congestion, which reinforced auto dependency and increased typical commute length.

Under SB 743, if a project adds excessive car travel (VMT) the project would cause a significant transportation impact that would need to be mitigated by implementing VMT reduction strategies. This change supports infill projects in accessible places that feature a mix of uses and travel choices, because such projects are unlikely to have a significant transportation impact under CEQA. This in turn means that no mitigation is required, reducing the cost of the project.

This update to CEQA supports SCS implementation by favoring development with lower numbers and lengths of vehicle trips and thus helping to avoid the development of critical agricultural lands and open space. An ongoing stakeholder working group collaboratively led by OPR and Caltrans provides a forum to support SB 743 implementation.[78]

COORDINATING IMPLEMENTATION OF THE FEDERAL INFRASTRUCTURE INVESTMENT AND JOBS ACT

On November 15, 2021, President Biden signed the Infrastructure Investment and Jobs Act (IIJA) into law, which includes provisions related to Federal-aid highway, transit, highway safety, and rail programs implemented by the U.S. Department of Transportation. It also includes federal policy direction and funding in areas such as climate action, zero-emission vehicle deployment, transportation equity, goods movement, and multi-modal transportation investment – many of which were sought by CalSTA and California transportation stakeholders.[79]

In addition to new formula funding for transportation programs, IIJA also creates new transportation discretionary grant programs and increases funding for existing discretionary programs between fiscal years 2022 and 2026. For example, IIJA

[77] SB 743 (Steinberg, Chapter 386, Statutes of 2013).

[78] See https://dot.ca.gov/programs/sustainability/sb-743/caltrans-opr-sb-743-working-group

[79] See https://calsta.ca.gov/subject-areas/infrastructure-investment-act?msclkid=8b875220c32411eca0adbe24ce4dd294

funds programs such as the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) program, which considers projects in part based on their impact on mobility and community connectivity, and the Low or No Emission Vehicle Program, which funds zero- and low-emission transit buses and supporting facilities, provide opportunities that California can leverage for SCS implementation.

CalSTA has kicked off a statewide IIJA Transportation Implementation Working Group comprised of State and local transportation agencies, the Federal Highway Administration, and other transportation stakeholders. This group will work collectively to develop a common understanding of IIJA policies and actions for implementing them. Several sub-groups, led by Caltrans senior staff, have been formed on specific policy areas like active transportation and transit and rail.

LATEST SUSTAINABLE COMMUNITIES STRATEGIES

MPOs have either adopted or are currently working toward development of their third SCS, and for many it is their first SCS subject to the new targets adopted by CARB in 2018.[80] CARB staff's evaluations show these plans will not be fully implemented without greater partnership at all levels of government, including the State authorizing the tools needed, and further actions from regional and local agencies to implement them.

This section highlights key strategies in recent SCSs in the four largest MPO regions, San Joaquin Valley MPO regions, and Northern and Coastal MPO regions. Additional detailed information on changes to strategies between plans can be found in the latest evaluations, located on the CARB website here: https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plans-evaluations

IN THE FOUR LARGEST MPO REGIONS

Land Use and Housing Strategies

The four largest MPO regions' SCSs have incorporated new actions to financially incentivize and support infill in identified priority growth areas, developed in response to their unique contexts. A few examples are highlighted below.

- SCAG's 2020 SCS includes an action to support its member jurisdictions in creating enhanced infrastructure financing districts (EIFD) to finance construction or rehabilitation of public infrastructure. The goal of this action is to help provide financing mechanisms for infrastructure improvements that smooth the path for economic development and reduce the cost of housing construction.

[80] California Air Resources Board. March 2018. *Resolution 8-12 Proposed Update to Senate Bill 375 GHG Emissions Reduction Targets.* Retrieved from: https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375_Final_Target_Staff_Report_%202018_Resolution_18-12.pdf

- SACOG's 2020 SCS includes actions to implement demonstration projects through its Civic Lab and Green Means Go Programs that encourage infill development and revitalization of commercial corridors that increase walking, biking, and transit use.
- MTC/ABAG's 2021 SCS includes many land use and housing strategies that will be supported by the newly created regional housing finance authority, or Bay Area Housing Finance Authority (BAHFA). The goals of BAHFA include: protection for current residents to avoid displacement, preservation of existing housing affordable for lower- and middle-income residents, and production of new housing at all income levels, especially affordable housing. BAHFA is currently working on five pilot projects to support these goals.
- SANDAG's 2021 SCS includes a new Housing Acceleration Program to promote activities that accelerate the production of housing, as well as development around its identified mobility hubs. The region supports this program by allocating over $6.8 million received through REAP 1.0 program funding.

Pricing Strategies

The four largest MPOs significantly rely on regional and local pricing strategies to reach the targets. Their SCSs include different combinations of the following pricing strategies:

- Mileage-based fees for distance driven in a region
- Cordon fees for operating vehicles in designated areas, roads, or highway corridors
- Parking fees
- Transportation Network Company[81] fees based on mileage traveled
- Express toll lane fees

These pricing strategies are intended to help achieve a variety of objectives, including VMT reduction, demand management, and revenue generation to fund alternatives to driving.

IN THE SAN JOAQUIN VALLEY MPO REGIONS

As of the drafting of this report, the San Joaquin Valley MPO regions are developing their third-round SCSs with anticipated adoption in summer 2022. With new targets, the San Joaquin Valley MPOs' planning efforts are building on existing strategies, intensifying sustainable transportation investments, and supporting additional density in existing urban areas. The upcoming high-speed rail system is an important opportunity for VMT reduction and for partnership between local, regional, and State

[81] Transportation network companies (TNCs) provide prearranged transportation services for compensation using an online-enabled application or platform (such as smart phone apps) to connect drivers using their personal vehicles with passengers.

entities in many of these regions. In particular, creating appropriate land use mix and density and investing in supportive infrastructure will be important in the Kings and Madera regions' high-speed rail stations, which are both planned on greenfield sites. Multimodal access that de-emphasizes reliance on automobiles will be important for all high-speed rail stations in the San Joaquin Valley regions and should be prioritized in station planning.

San Joaquin Valley MPO regions are also developing quantification methodologies to account for new strategies not previously quantified in their travel demand models, such as vanpools, locally funded electrification investments and incentives, and some newly developed strategies focused on new mobility and remote work. Partnerships and new mobility programs to provide additional transportation options have been successful in increasing access to jobs and services and have expanded despite the pandemic. However, providing clean travel options to daily needs in existing rural communities remains challenging, and many of these regions are planning to rely more on electric vehicle strategies to help meet their targets.

IN THE NORTHERN AND COASTAL MPO REGIONS

Like the San Joaquin Valley MPO regions, the Northern and Coastal MPO regions have identified ways to support and intensify land use and transportation strategies identified in their last SCSs. They are also developing quantification methodologies to account for strategies not quantified in their travel demand model such as remote work, vanpools, and locally funded electric vehicle investments and incentives. Northern and Coastal MPO regions are challenged with long distances between jobs and housing and have focused their SCS strategies to address jobs-housing imbalances with land use scenarios that bring housing growth closer to existing employment centers and by supporting new jobs in established residential areas.

REMAINING CHALLENGES AND NEED FOR FURTHER ACTION

CARB consulted practitioners and stakeholders through surveys, meetings, a public workshop, and interviews to gain insights into reasons why trends are not moving in the direction needed to meet climate targets and to identify what actions could be taken to reverse those trends. State, regional, and local agencies expressed frustration with the challenges that they experience when trying to change development patterns and transportation systems. Many felt that recent policy efforts would not be enough to enable implementation of the strategies in adopted SCS plans. As such, this *2022 Progress Report* calls for bold action by the Legislature and for more work at every level of government to support and ensure SCS implementation. CARB heard from stakeholders regarding remaining challenges and the need for further action by the Legislature and partners at every level of government. The feedback and insights CARB received revealed two overarching themes:

Fulfilling SB 375 requires a stronger focus on implementation.

SB 375 has been an important tool to coordinate regional land use and transportation planning. However, it is incomplete; no matter how robust, regional plans alone cannot reduce emissions. Fulfilling SB 375 requires a stronger focus on implementation, starting with authorizing and funding the strategies in the most recently adopted SCSs and using SCS planning assumptions to shape future growth. They must be coupled with resources and measures to implement their recommended strategies. It is critical that the State, including the Legislature, focus attention on authorizing and funding strategies and provide other policy tools that support implementation.

Areas of particular focus by the Legislature, State, regional agencies, and local agencies include land use and housing strategies and transportation pricing strategies. Advancing policy levers for all levels of government to implement these two strategy areas is essential to changing travel behavior. This is consistent with the latest SCSs, and the research and analysis.[82,83]

SCS implementation requires better alignment across State, regional, and local actions.

SCS implementation relies on local and regional agency decisions about where to allow development, what types of development to allow, and which transportation improvements to fund. However, in many regions, there is not enough coordination between local plans and project implementation, and the SCSs. For example, local land use decisions do not always align with the SCS assumptions in regional plans, and State investments do not always align with SCS assumptions either.

Practitioners and stakeholders identified the need for greater involvement by all levels of government, as partners, to foster SCS implementation. The State, in partnership with regional and local agencies needs to revisit and reprioritize investments away from projects that will increase driving and secure additional resources to provide needed support, guidance, targeted funding, and policy tools to make it easier and less costly to implement these actions.

The following section further discusses specific challenges raised by stakeholders and identifies potential actions organized by four main strategy areas: *Land Use and*

[82] California Department of Transportation. *California Transportation Plan 2050*. February 2021. Pages 97-98. Available at: https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf

[83] Brown, A. L; Sperling, D.; Austin, B.; DeShazo, JR; Fulton, L.; Lipman, T., et al. (2021). Driving California's Transportation Emissions to Zero. UC Office of the President: University of California Institute of Transportation Studies. http://dx.doi.org/10.7922/G2MC8X9X Retrieved from https://escholarship.org/uc/item/3np3p2t0

Housing, Transportation System Management, Transportation Planning and Funding, and New Mobility and Electric Vehicles.[84]

Each MPO region is unique, and challenges to SCS implementation vary throughout the state. Not all strategy areas apply to every MPO region, and the potential actions identified are offered as potential first steps for addressing the challenges.

LAND USE AND HOUSING

Development patterns in many parts of California currently make it easier to drive than to get around via public transit and active transportation. Nearly all SCSs include land use strategies such as supporting job and housing growth in identified priority development areas, which could make non-auto travel more convenient. However, implementation of this vision for future growth has been difficult. What follows are key actions to facilitate implementation of land use and housing strategies.

INCENTIVIZE ALIGNMENT OF LOCAL LAND USE WITH REGIONAL PLANS

Challenge: Despite many regions identifying priority areas in the SCSs for new development that can bring jobs, daily needs, and housing closer together, many local agencies have not successfully advanced infill and climate-smart development as needed. Instead of planning for new homes, shops, and workplaces within priority growth areas, too often growth is still being planned for land outside existing communities or built there first, especially in rural areas. All levels of government need to support and incentivize projects that allow for shorter trips, in both urban and rural areas, by bringing jobs and daily needs closer to homes.

Potential Actions:

- The Legislature could give State and regional agencies a greater role in supporting congruent local land use actions to foster their alignment with SCS implementation.
- State and regional agencies could expand data sharing, such as providing open access to parcel data and priority development area shapefiles. This could support local planning that aligns with SCSs, SCS development and progress tracking, and state project prioritization. For example, SCAG developed the Housing Element Parcel (HELPR) tool, which identifies potential housing sites that could advance SCS implementation.

[84] The draft 2022 Scoping Plan includes Appendix E: Sustainable and Equitable Communities which is a framework for State action on VMT to support achievement of carbon neutrality that includes both State actions needed to support SCS implementation, as well as additional needed VMT reduction actions. The 2022 Progress Report focuses on identifying actions needed by all levels of government to support SCS implementation.

- State and regional agencies could support widespread adoption of the Prohousing Designation Program[85] and further incorporate polices that support housing growth and VMT reduction in tandem. By using the Prohousing Designation Program, State and regional agencies can direct discretionary investments to jurisdictions that are making strong efforts to develop housing in ways that reduce VMT.
- The Legislature and State agencies could explore potential actions to expand the use of transfer of development rights, which is a growth management technique that allows property owners (such as farmers and ranchers) to disconnect the right to develop their property from the property itself and sell or transfer it for use on a different parcel of land in the community, thereby preserving the original parcel from development. This supports both natural and working land conservation and infill growth.
- The Legislature could expand tools and funding available to State, regional and local agencies to preserve natural and working lands and help to shape growth patterns. Tools and funding could focus on supporting regional "greenprint" planning efforts, as well as the conservation of key lands the plans identify as at risk of being lost to urbanization.
- Local agencies could establish urban growth boundaries (UGBs) to focus new development in existing communities. State and regional agencies could provide incentives, technical capacity, and other support for implementation of UGBs aligned with SCSs to facilitate infill development and affordable housing. For example, every city in Sonoma County has a UGB.
- State or regional agencies could develop a resource for local agencies that further defines and illustrates how infill can be context-sensitive in different parts of California, including in rural areas and small towns, and offers policy templates for local adoption. An example to build on is the AMBAG's infill development resource page for local governments in its region, which is part of the region's toolkit to support local SCS implementation.[86]
- State agencies could prioritize support for complete streets and other infrastructure improvements to attract development in locations targeted in SCSs for growth. For example, the Sacramento Area Council of Governments (SACOG) Rural Main Streets program provides strategic investments to create vibrant commercial corridors[87] and Green Means Go targets funding to

[85] For more information about the Prohousing Designation Program see *Prohousing Designation Program*. California Department of Housing and Community Development. Accessed May 2, 2022. https://www.hcd.ca.gov/community-development/prohousing/index.shtml

[86] For more information about AMBAG's SCS Implementation Project see *Sustainable Communities Strategy Implementation Project*. Association of Monterey Bay Area Governments. Accessed May 2, 2022. https://www.ambag.org/plans/sustainable-communities-strategy-implementation-project.

[87] For more information about SACOG's investments in regional commercial corridors and main streets see *Commercial Corridors and Main Streets: Civic Lab Year Two*. Sacramento Area Council of

promote infill development within planned center, corridor, or established communities identified in its SCS.[88]

ACCELERATE INFILL HOUSING PRODUCTION

Challenge: Across the State, housing production is falling far short of demand and the growth assumed by regional SCSs. The high upfront costs for building infill and affordable housing continue to discourage these development types. The costs of land, labor and materials, local development requirements and fees, lack of existing infrastructure and subsidies to build affordable units, and costs to navigating the political and legal context are significant. Long approval timelines put financial pressure on developers to shift projects toward upper-income buyers to recoup upfront costs or discourage development efforts altogether.

Potential Actions:

- The Legislature could expand tax increment financing options and other financing tools for infill-supportive infrastructure.
- State agencies and the Legislature could expand funding for infill-supportive infrastructure (e.g., investing and upgrading infrastructure for sewers, water systems, transit, roads, or public facilities) to help alleviate the financial barriers posed by needed upgrades to support more intense land uses in existing neighborhoods. For example, this can be further expanded from existing funding programs like REAP 2.0 or the Infill Infrastructure Grant Program.
- State agencies could partner to support expansion of prefabricated construction for affordable housing projects, in collaboration with industry partners, to reduce construction costs and accelerate housing production timelines.
- State and regional agencies could provide funding and guidance for local agencies to update and streamline their permit processes for affordable housing projects and projects in identified priority development areas.[89] For

Governments. Accessed May 2, 2022. https://www.sacog.org/post/commercial-corridors-and-main-streets.

[88] For more information about SACOG's Green Means Go program, see *Sacramento Region Greenhouse Gas Reduction Pilot Program Green Means Go*. Sacramento Area Council of Governments. Accessed May 11, 2022. https://www.sacog.org/greenmeansgo.

[89] Many SCSs include priority development areas, or places within the region where new homes, jobs and community amenities are targeted, typically near existing or planned transit. Many regions identify these areas in their SCSs, but they many go by different names such as priority growth areas, infill development areas, or place/community types like established communities or center/corridor communities, etc.

example, the City of Los Angeles has established expedited processing services for planning entitlement applications.[90]

- Local agencies could develop guides and preapproved designs for ADUs and duplexes to make it easier and faster to build these units.
- Regional agencies could use their convening and regional leadership role to help local agencies initiate partnerships with non-profit and business partners to advance infill development projects that support climate, public health, and equity goals. For example, TCAG helped local agencies connect with community partners to support affordable housing projects and active transportation investments.
- State and regional agencies could continue exploring actions to expand adaptive reuse of commercial buildings for housing. For example, MTC/ABAG's latest SCS includes a strategy to encourage adaptive reuse of aging malls and office parks into neighborhoods through targeted financial and technical assistance programs for planning and housing development. The City of San Francisco is currently reviewing plans to adapt the Stonestown Mall for housing development.[91]

EXPAND TOOLS AND RESOURCES TO INCREASE AND PROTECT AFFORDABLE HOUSING

Challenge: California is not building enough homes to meet the needs of its growing population, especially to serve lower-income households, which is contributing to further housing cost burdens and inequities across the state. In addition to addressing the building cost challenges discussed above, additional work is needed to support RHNA implementation at the local level. While recent housing legislation has provided more guidance for implementation of RHNA assumptions, stakeholders report that some cities are planning or selecting sites for low-income housing that are unlikely to be redeveloped within the RHNA housing cycle. Furthermore, many local policies to support the construction and preservation of housing, especially for lower-income households, are still not strong enough to overcome opposition to land use development. Finally, additional actions are needed to protect the existing stock of low-income housing in communities where it is at risk of converting to market rates as market-based rents continue to rise, which can result in displacement of low-income residents.

[90] For more information about the City of Los Angeles' expedited processing services see *Expedited Processing.* City of Los Angeles. Accessed May 2, 2022. https://planning.lacity.org/development-services/expedited-processing

[91] City of San Francisco, Planning Department. Stonestown. Retrieved on May 12, 2022, from: Stonestown | SF Planning

Potential Actions:

- The Legislature could empower regions to develop housing finance authorities. For example, AB 1487[92] created the Bay Area Housing Finance Authority which works to protect current residents from displacement, preserve existing affordable housing, and produce new housing. (See the section above on the "Latest SCS Strategies" for more information.)
- State agencies could support local housing element implementation by providing further technical assistance to support housing law interpretation and adding requirements in funding programs around using AFFH tools to identify where the SCS does and does not support future growth.
- The Legislature and State agencies could design policies that help protect new affordable housing and low-VMT projects from litigation by providing further protections around housing production and infill development.
- State agencies could identify opportunities in existing and future funding programs to support where new housing is going in relation to RHNA sites and AFFH, as well as prevent displacement impacts. To support this, regional agencies could provide priority development area data to the State for tracking to allow analysis of how much housing development is occurring in each region's priority development areas using permit data from the Annual Progress Report compiled by HCD.[93]
- State agencies could expand interagency work on anti-displacement policies via working group efforts to develop and strengthen policies that are consistent across agencies. The working group could incentivize regional and local agencies to create displacement avoidance plans and implement anti-displacement policies (e.g., rental and foreclosure assistance programs, tenant right to counsel, compensation for no-fault eviction for redevelopment, "just cause" evictions, condominium conversion restrictions, inclusionary zoning, and impact/linkage fees to support affordable housing) to be competitive for discretionary funding. For example, the Transformative Climate Communities program requires development of displacement avoidance plans.

TRANSPORTATION SYSTEM MANAGEMENT

Californians continue to drive alone as their primary mode of travel. Transit ridership is declining, and active transportation rates remain low. Managing the transportation assets that California has such that transit and active transportation modes become more convenient and affordable to use for everyday trips than a car will require additional tools and innovation.

[92] AB 1487 (Chiu, Chapter 541, Statutes of 2015).

[93] For more information on the APR Dashboard Housing Element Open Data Project see *Annual Progress Reports – Data Dashboard and Downloads*. California Department of Housing and Community Development. Accessed May 2, 2022. https://www.hcd.ca.gov/apr-data-dashboard-and-downloads.

One of these additional tools will be transportation pricing.[94] The four largest MPOs have identified various transportation pricing tools in their SCSs as essential to meet the GHG emission reduction targets. However, further action is needed by the Legislature to authorize most transportation pricing strategies for implementation by 2030, as reflected in the SCS plans.

Another area of focus is in looking for opportunities to optimize and elevate the competitiveness of transit, cycling, rolling, cand walking through investments by all levels of government. Investments to improve the user experience – the convenience, reliability, and cost-competitiveness of alternative modes – are critical to shifting people's travel choices.

AUTHORIZE TRANSPORTATION PRICING

Challenge: Authorizing transportation pricing strategies is needed to promote more efficient use of cars and to improve transit and active transportation options. Pricing strategies present an opportunity to fund the transportation system in a more equitable and fiscally sustainable way than current funding sources, promote more efficient functioning of existing infrastructure, and fund new transportation options, especially for those who do not own a vehicle or do not drive. The Legislature has directed State agencies to study a California mileage charge through SB 1077[95] and regional agencies have sponsored studies to assess region-specific design and impacts. Additional work is needed to ensure that application, design, and fund management of these strategies supports the State's climate and equity goals. In particular, pricing strategies need to take into account the potential choices available for vulnerable populations to ensure they are not unduly impacted by these strategies.

Potential Actions:

- State agencies could complete the second planned mileage-based fee pilot project by no later than 2025.
- The Legislature could permit implementation of a suite of roadway pricing strategies in support of adopted SCSs. This could include: establishing fees for miles driven as an alternative to the gas tax and providing flexibility to reinvest revenues in sustainable transportation options such as transit, biking, and walking; authorizing State and regional agencies to implement regional congestion or managed lane conversion projects, with guardrails to protect against applications that may result in inducing travel; as well as authorizing regional and local agencies to implement cordon pricing around downtown centers and other key destinations.

[94] Pricing strategies take many forms and can include fees for miles driven, cordon fees for operating vehicles in designated areas, parking fees, fees on congestion impact of ride-hailing services, and dynamic fees on highway lanes and other strategic roads to manage congestion.

[95] SB 1077 (DeSaulnier, Chapter 835, Statutes of 2014).

- State agencies could work in partnership with regional and local agencies to authorize different pricing mechanisms and provide guidance on pricing strategy implementation. This guidance could address: what pricing mechanisms are available; appropriate applications in urban, suburban, and rural contexts; options for how funds can be managed; how the revenue can be distributed to support transit and active transportation; and how to address equity concerns.
- State and regional agencies could provide guidance and incentives to local jurisdictions to develop and manage parking with pricing strategies around high-density and transit-rich areas in urban regions.

OPTIMIZE THE TRANSIT EXPERIENCE

Challenge: The four largest MPO regions are increasing transit investment, but transit ridership has not been increasing, and a dramatic decline in transit use occurred across California due to the pandemic. Although projects in the pipeline may increase ridership once construction is completed, project timelines are lengthy. Additional actions by State, regional, and local agencies are needed to rethink, innovate, and increase funding to provide both capital improvements to the transportation system and operational and maintenance improvements to sustain new and existing services so that the user experience becomes convenient and cost-competitive to driving.

Potential Actions:

- State and regional agencies could incentivize and support transit agencies to redesign their service networks to reflect changing land use patterns and innovate to better support the different service needs of both transit-dependent and choice riders, considering things like bus rapid transit, dedicated lanes, and transit signal priority. Transit agencies could continue to adapt services to optimize the transit experience for diversity of riders, considering differences in use by gender, race, and class. For example, Sacramento Regional Transit District updated services to improve frequency on fixed routes with highest ridership and offer new on-demand shuttle services to areas without service or previously served by inadequate or inefficient fixed-route service.[96]
- The Legislature could further support transit success by dedicating funding to transit projects that optimize the transit experience, improve connections between systems, and offer a convenient alternative to driving.
- State and regional agencies could encourage transit agencies to adopt standardized transit fare structures and payment processes, and mobility

[96] For more information about Sacramento Regional Transit District's on-demand shuttle services see *SacRT SmaRT Ride – Shuttle Service that Comes to You*. Sacramento Regional Transit. Accessed May 3, 2022. https://www.sacrt.com/apps/smart-ride/

accounts that provide static and real-time data to support transit network updates responsive to community travel needs. For example, Caltrans has initiated the California Integrated Travel Project (Cal-ITP) aiming to make it easier to use public transportation by offering seamless trip planning and payment across modes and across services in California.[97]

- The Legislature could explore changes to the current Transportation Development Act requirements to support transit agency management decisions toward alignment with transit strategies in the SCSs.
- The Legislature could incentivize regional and local agencies to design policies to make transit affordable for all who need to use it and to make it a cost-competitive and convenient option to driving for choice riders.
- Local agencies could require incorporation of design elements into development projects near transit stations and stops to help improve the transit user experience, such as: lighting, benches, shade structures, urban greening, signage, bicycle parking, and curb management.

TRANSPORTATION PLANNING AND INVESTMENTS

Many stakeholders reiterated several challenges with funding the transportation planning and projects that implement the SCS. Specifically, they cited the need for better alignment of Federal, State, and local transportation funding sources with State objectives around climate and equity in order to implement projects consistent with SCSs. There is also a need to provide dedicated, flexible, multi-year, capacity-building funding for programmatic and technical assistance efforts around pedestrian and cyclist safety, public engagement, and behavior change.

ACCELERATE DELIVERY OF VMT-REDUCING PROJECTS

Challenge: Meeting the GHG emission reductions needed from SB 375 relies on funding VMT-reducing projects. This can be accelerated by a structural realignment of the State's framework for planning and funding transportation to further prioritize investments in passenger rail, transit, active transportation, and building more sustainable communities.[98] Billions in funding for VMT-increasing projects are still found within RTPs (e.g., new general-purpose lanes, new managed lanes, interchanges, and new arterials and connector roads) as many transportation projects in the pipeline reflect priorities from earlier years and do not consider California's

[97] For more information about the Caltrans Cal-ITP program see *California Integrated Travel Project (Cal-ITP).* Caltrans. Accessed May 2, 2022. https://dot.ca.gov/cal-itp/cal-itp-gtfs.

[98] Governor Newsom's EO N-19-19 and the subsequent development of the CAPTI call for this change and provide a general framework to achieve it, respectively. See CalSTA, "Climate Action Plan for Transportation Infrastructure"

current goals and priorities for VMT reduction.[99] Re-envisioning projects can be an opportunity to meet core needs in ways that align with State climate goals and do not increase VMT.

Potential Actions:

- State agencies have committed to working with stakeholders to reimagine roadway projects that increase VMT in the current pipeline of State transportation investments in a manner that addresses underlying access and connectivity needs while ensuring alignment with the State's climate and equity goals. This initiative should be prioritized.
- State agencies could accelerate efforts to implement the recommendations in the CAPTI in relation to planning and funding future transportation investments to support the State's VMT reduction goals, meet community needs, and prioritize needs of overburdened communities.
- The Legislature could explore providing additional funding to support mode shift to transit and active transportation. Examples of existing programs that are highly competitive and oversubscribed include Caltrans' ATP and LCTOP, as well as CARB's STEP.
- Regional and local agencies could prioritize transportation projects for funding based on how well they align with the State's VMT reduction goals and minimize the number of projects considered to be already committed and exempt from MPO efforts to prioritize projects for inclusion in the RTP based upon which projects best advance SCS implementation and regional goals.
- The Legislature could establish criteria related to emissions reductions and equity that transportation projects must meet in order to be funded by existing and new local transportation tax measures. To enhance transparency, the Legislature could also require agencies that administer these funds to estimate the GHG emission and VMT effects for each project and the financial impacts to low-income residents.
- State agencies could support and incentivize local and regional agencies in implementing transportation quick build methods (i.e., utilizing portable materials to separate car lanes and cycletracks/pedestrian/transit ways and expediting lengthy approval processes) to expand bikeway, pedestrian, and bus rapid transit networks.[100]

[99] Deakin, E.; Chow, C.; Son, D.; Handy, S.; Barbour, E.; Lee, A., et al. (2021). Evaluation of California State and Regional Transportation Plans and Their Prospects for Attaining State Goals. *UC Berkeley: Institute of Transportation Studies at UC Berkeley*. http://dx.doi.org/10.7922/G2MP51KQ Retrieved from https://escholarship.org/uc/item/50j4b4r8

[100] For more information on recent implementation of the quick build method in California see: https://www.calbike.org/our_initiatives/quick-build-bikeway-networks-for-safer-streets/

IMPROVE ACCESS TO FUNDING FOR HIGH MODE SHIFT PROJECTS

Challenge: Some discretionary transportation and climate grant programs could do more to prioritize projects with high mode-shift potential, which are necessary for successful SCS implementation. To implement these projects, regional and local agencies have taken on additional work to piecemeal different funding sources and pursue competitive and oversubscribed transportation and climate grant programs. Further support for funding programs that offer flexibility like CARB's STEP[101] are needed. At the same time, stakeholders interviewed for this report indicated that competitive funding pursuits can be extremely challenging, especially for smaller jurisdictions with limited staffing resources.

Potential Actions:

- State agencies could partner with local and regional agencies to reevaluate existing discretionary transportation and climate grant programs and update program guidelines to further prioritize projects with high mode-shift potential. Stakeholders identified the following priorities for discussion: elevating projects that meet multiple goals (citing CARB's clean transportation incentive programs as an example); optimizing flexible transit service to meet community needs in both urban and rural contexts; and closing gaps in the pedestrian and bicycle system.
- State agencies could streamline funding application processes and expand technical assistance offerings to regional and local agencies to make it easier to navigate State discretionary transportation and climate grant program opportunities.
- State and regional agencies could partner on developing technical assistance, grant writing support, and program implementation resources to serve under-resourced local jurisdictions seeking to implement transportation projects that align with the SCS. For example, SANDAG disseminates information through established forums with local members to share information about new State funding programs, which makes it less resource-intensive for local agencies to navigate on their own.
- The Legislature could establish durable and flexible funding streams to support implementation of transit and active transportation capital improvements and operations.

[101] For more information on CARB's STEP see *Sustainable Transportation Equity Project (STEP)*. CARB. Accessed May 2, 2022. https://ww2.arb.ca.gov/lcti-step.

MOBILITY, SAFETY, HEALTH, AND EQUITY

Mobility is critical for enabling people to access daily needs, services, jobs, and other amenities in order to maintain health and well-being. But perhaps the most significant transportation-related opportunity for improving public health is through increased transport-related physical activity. Increasing active transportation and public transit trips that replace vehicular trips and reduce VMT can significantly improve overall population health, prevent or reduce the risk of developing many chronic conditions, reduce billions of dollars in statewide health care costs, and substantially cut GHG emissions and air pollution. To capture these health benefits, CARB and CDPH used the Healthy Mobility Options Tool (HMOT) to calculate the health benefits of active transportation from the California Transportation Plan (CTP) 2050 compared to business as usual for 2050. The HMOT estimated that a total of 7,941 deaths would be avoided in 2050 for the "combined scenario" that increases active transportation, increases transit use, and decreases vehicle miles traveled through land use planning – with an overwhelming number of avoided early deaths due to increases in physical activity and the resulting reductions in chronic diseases like heart disease, stroke, stroke, diabetes, and certain cancers (among the top causes of death for Californians). This would correspond to saving more lives than are lost to the 8th leading cause of death in the state (influenza/pneumonia), based on 2017 data. CARB and CDPH also used the HMOT tool to estimate avoided deaths due to reductions in the individual chronic diseases examined. The greatest benefits are due to reductions in cardiovascular health impacts and dementia impacts.

Another critical and preventable public health and equity issue are traffic-related fatalities and serious injuries. In 2017, California had a total of 3,582 fatal and 193,564 injury crashes.[102] This is an average of 1.1 deaths per fatal crash.[103] Collisions are happening in every region and are happening to those who drive, walk, and cycle. Of particular concern are vulnerable groups such as children and seniors. In 2017, children under the age of 15 accounted for 10.9 percent of pedestrian victims and 9.7 percent of bicycle victims that were killed and injured.[104] These tragic figures illustrate the crucial need to safely accommodate all modes and reduce speed limits to reduce the likelihood or severity of collisions. The multi-modal investments in regions' RTPs can make this possible and avoid future tragedies. Traffic-related fatalities and serious injuries have significant impacts on the lives of families, friends, colleagues, and communities. They also have economic and environmental impacts. Traffic collisions impact congestion, lead to emergency management costs and personal financial costs, property damage, and additional GHG emissions from bottlenecking. Increasing safety for pedestrians and cyclists can make transit and active transportation more desirable, encouraging mode shift and reducing GHG emissions and VMT. Safety features can include a variety of interventions such as establishing slower vehicle speeds through traffic calming measures like speed humps, bulb-outs, chicanes, tighter turning radii; providing physically separated facilities such as through bike paths, transit lanes, and guardrails; establishing safe sight distances making vehicles, pedestrians and cyclists more visible; providing signal controls or stop-signs in

heavily used intersections; speed cameras where appropriate; and more. Providing a safe transportation network is essential to meet our economic, housing, environmental, equity, and public health goals.

[102] California Highway Patrol. *2017 Annual Report California: 2017 Annual Report of Fatal and Injury Motor Vehicle Traffic Crashes*. Undated. Available at: https://www.chp.ca.gov/InformationManagementDivisionSite/Documents/2017%20ANNUAL%20REPORT%20CALIFORNIA.pdf

[103] Ibid.

[104] Ibid.

PRIORITIZE COMMUNITY NEEDS

Challenge: SCS planning and implementation efforts need more robust community engagement to identify, measure, and prioritize transportation policy and project solutions that produce equitable outcomes. Community members and NGOs are essential partners in local and regional transportation planning and funding processes. Furthermore, situations where robust engagement has occurred, but the investments were not realized, erodes trust between communities and all levels of government. Additionally, investments in road-building projects that cut through communities or cut them off from other parts of town have created harmful impacts. It is important to engage communities in a meaningful way to identify community needs and then to prioritize those needs through project completion.

Potential Actions:

- State and regional agencies could encourage more community representation in decision-making processes by reevaluating participation requirements on advisory boards and committees to allow the public and non-governmental organization representatives to advise more directly on transportation policy and project decision-making.
- State and regional agencies could evaluate which communities have received more limited amounts of funds and then partner with community groups to develop strategies for addressing this.
- State and regional agencies could fund technical assistance to communities for pursuing funding for community-led plans and projects, especially for those identified through community-led transportation needs assessments. This could be accomplished through sustained funding to programs such as CARB's clean transportation incentive programs and the creation of new funding programs intended to fund community-led plans.
- State agencies could develop mechanisms and funding programs to allow local, regional, and State agencies to compensate community partners and NGOs for time participating in planning and decision-making processes at the local, regional, and State levels.
- State agencies could further support development of community emission reduction plans under AB 617[105] to include land use and transportation strategies that support SCS implementation and help address the pollution burdens in identified communities.

[105] AB 617 (C. Garcia, Chapter 136, Statutes of 2017).

NEW MOBILITY AND ELECTRIC VEHICLES

Transit ridership declines demonstrate that public transit must evolve to better meet changing community needs. SCSs have started to include new mobility strategies that complement public transit, as well as investments in electric vehicle deployment.[106] While these innovations have great potential, clear standards and guidelines are essential to maximize and ensure broad access to their benefits, and importantly, to avoid risks that they could increase VMT. Especially in rural communities, where transportation options may be more limited, electric vehicles will also be an essential component of sustainable mobility.

SUPPORT NEW MOBILITY CONNECTIONS TO TRANSIT

Challenge: New mobility strategies offer the potential to complement public transit and improve access to regional opportunities, especially by serving first/last mile travel needs. However, the rapid pace of innovation for new mobility technology and autonomous vehicles without clear standards for operation and safety presents risks for early adoption of technologies in the public sector. Adoption of new mobility programs need dedicated funding beyond the pilot phase to serve as reliable transportation options.

Potential Actions:

- State, regional, and local agencies could design, launch, and operate micromobility, rideshare, microtransit, and carsharing using statewide standardized data agreements, procurement through technology vendors, and partnerships with community-based organizations. For example, Caltrans' Cal-ITP has partnered with AMBAG, SBCAG, SACOG, and SCAG on a series of regional transit pilots to make it easier to use and pay for transit and collect high-quality mobility data to evaluate community benefits and inform design of further system enhancements (e.g., providing real time information to assist travelers in meeting their mobility needs).[107]
- State and regional agencies could further support clean travel solutions to better address community needs by reviewing and updating funding program guidelines to allow more flexibility for innovative and clean micromobility, rideshare, microtransit, ridehailing, and last-mile delivery services that are supportive of SCS strategies.

[106] New mobility services include shared-use mobility services, such as car-share, ride-hailing, and micromobility services; mobile phone-based services for trip planning, booking, and payment; and new travel technologies such as automated vehicles (AVs).

[107] For more information about the Caltrans Cal-ITP program see *A modern and consistent transportation experience throughout California*. Cal-ITP. Accessed May 2, 2022. https://www.calitp.org.

- State agencies could develop toolkits for regional and local agencies on how to design new mobility programs to maximize program benefits and establish consistent data collection and reporting agreements.
- State agencies could provide guidance regarding deployment of autonomous vehicles, such as safety and operation standards to protect the public, and to ensure they support climate and equity goals.

COORDINATE ELECTRIC VEHICLE INVESTMENTS AND INFRASTRUCTURE

Challenge: Nearly all SCSs include strategies for incentivizing electric vehicle (EV) infrastructure or vehicle purchases. However, implementation remains difficult since the strategies require new charging infrastructure, new technology for users to learn, and workforce skill development. It also requires ensuring that these reductions do not undercut SB 375's original intent to coordinate land use and transportation systems to reduce driving.

Potential Actions:

- State agencies could encourage jointly planned and funded programs between regional and local agencies to achieve regional EV collaboration instead of having multiple EV programs in one region, each with their own funding needs.
- The Legislature could establish dedicated funding to implement the Innovative Clean Transit Regulation[108], so funds dedicated to VMT reduction strategies do not have to be redirected to purchase vehicles.
- State agencies in partnership with regional and local agencies could develop design standards for EV charging stations that help advance implementation of SCS strategies to increase EV infrastructure. Design standards can help expedite permitting approval timelines and implementation by making development less costly by addressing topics such as: siting and layout to accommodate all vehicle types; mapping and wayfinding signage to identify charging locations; and supportive infrastructure around charging stations (e.g., awnings, trash cans, etc.).
- State agencies could commit to working with utilities to increase resources dedicated to upgrading service in priority communities and to speed interconnections.

  State agencies in partnership with regional and local agencies could further support and expand outreach of existing workforce development programs supportive of EV infrastructure and maintenance in partnership with high schools, colleges, and universities to teach trade skills.

[108] Adopted in December 2018, the Innovative Clean Transit Regulation requires all public transit agencies to gradually transition to a 100-percent zero-emission bus fleet and encourages them to provide innovative first- and last-mile connectivity and improved mobility for transit riders. This regulation also provides various exemptions and compliance options to provide safeguards and flexibility for transit agencies through this transition. For more information see: https://ww2.arb.ca.gov/our-work/programs/innovative-clean-transit

CALIFORNIA ENVIRONMENTAL QUALITY ACT & SB 743: PROJECT-LEVEL VMT

SB 375 includes CEQA provisions. These include streamlined review and analysis of residential or mixed-use projects consistent with the SCS; modified review and analysis through an expedited Sustainable Communities Environmental Assessment (SCEA) or for Transit Priority Projects (TPPs) that are consistent with the SCS; and a complete CEQA exemption for TPPs that are consistent with the SCS and meet a specific list of other requirements. CEQA benefits under SB 375 have had limited use, and new requirements to analyze VMT instead of LOS directed by SB 743 has been resource intensive for local and regional agencies to implement. During our interviews local and regional agencies called for support around CEQA streamlining and for support with SB 743 implementation. Further action is needed by State agencies and the Legislature to refine these tools in ways that support SCS implementation.

Improve CEQA Streamlining Benefits to Support Infill

Challenge: The existing CEQA benefits under SB 375 have very limited use as implementation costs outweigh this incentive. Most practitioners and stakeholders stated in discussions that SB 375 was not provided with strong implementation tools and many regions do not see the CEQA streamlining provisions in the law as a true incentive since it is complex to apply to specific projects. Although CEQA is not a primary barrier to infill housing relative to other challenges, further attention to any issues in its implementation can help iron out challenges.[109]

Potential Actions:

- State or regional agencies could establish a new working group of experts to develop guidance for local agencies on how to incorporate land use-specific performance standards as part of municipal codes to streamline the CEQA review process. Developing code requirements instead of mitigation on a project-by-project basis streamlines project development and ensures development commitments are made upfront.
- The Legislature could improve CEQA streamlining opportunities for infill development by improving exemptions for projects that support GHG emission and VMT reductions. New CEQA streamlining could consider project location, density, affordability, floor area ratios, parking availability, mode shift, and other relevant factors.
- State and regional agencies could provide more resources, technical assistance, and guidance to locals on SB 375 CEQA provisions. For example, SACOG

[109] O'Neill, Moira and Biber, Eric and Gualco-Nelson, Giulia and Marantz, Nicholas and Marantz, Nicholas. (September 18, 2021). *Examining Entitlement in California to Inform Policy and Process: Advancing Social Equity in Housing Development Patterns*. Available at SSRN: https://ssrn.com/abstract=3956250

provides resources and worksheets to help CEQA lead agencies determine if SB 375 CEQA streamlining is applicable, appropriate, and how to approach it.[110]

Provide Support for SB 743 Implementation

Challenge: SB 743 transitioned environmental analysis away from LOS to VMT. However, it has been resource-intensive for local agencies to navigate and implement individually. VMT mitigation strategies are project-dependent and often designed independently of the region's SCS leaving the fundamental connection between regional and local transportation and land use strategies unaddressed.

Potential Actions:

- State and regional agencies could provide further guidance around how SB 743 thresholds and mitigation measures connect to and support SCS implementation, as well as develop more off-the-shelf resources (e.g., templates, guidance, and tools) for lead agencies to use in implementing and complying with SB 743. Currently, each lead agency is individually developing thresholds, which has been resource-intensive, especially for smaller and mid-size jurisdictions.
- State agencies could establish guidance for regional and local agencies on how to administer SB 743 mitigation banking or exchanges and how revenue should be spent to support SCS implementation such as for transit and active transportation projects.

[110] Sacramento Area Council of Governments. SB 375 CEQA Streamlining. SB 375 CEQA Streamlining - Sacramento Area Council of Governments (sacog.org) Accessed May 12, 2022.

CONCLUSION

SB 375 has been an important tool to coordinate regional land use and transportation planning; however, it is incomplete. SB 375 establishes requirements for regional planning, which is only one element of the institutional and policy framework that affects how communities are planned and built and how people move around. Several attempts have been made to amend the SB 375 law.[111] To date, none has passed. Although such bills have generally been thoughtful efforts to strengthen SB 375, further challenges may have remained even had they passed, because no matter how robust, regional plans alone cannot reduce emissions.

Fulfilling SB 375 requires a stronger focus on implementation. Authorizing and funding strategies in the most recently adopted SCSs and using SCS planning assumptions to shape future growth are important opportunities to produce the sustainable development patterns and transportation systems California needs to meet the State's new carbon neutrality goals and to advance equity and public health. Although we are seeing some progress, the current toolbox is insufficient to fully implement the strategies needed to get to our goals. By authorizing and creating the tools we need, we can expand progress in this area before time runs out.[112]

[111] SB 526, 2019-2020 Reg. Sess. (Cal. 2019) https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB526; SB 1363, 2019-2020 Reg. Sess. (Cal. 2020) https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200SB1363; AB 1147, 2021-2022 Reg. Sess. (Cal. 2021) https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220AB1147; SB 261, 2021-2022 Reg. Sess. (Cal. 2021) https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB261; SB 475, 2021-2022 Reg. Sess. (Cal. 2021) https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB475

[112] https://www.ipcc.ch/report/ar6/wg2/