



CALIFORNIA  
AIR RESOURCES BOARD



2022 PROGRESS REPORT  
California's Sustainable Communities  
and Climate Protection Act



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## Metropolitan Planning Organizations

Association of Monterey Bay  
Area Governments

Butte County Association of Governments

Fresno Council of Governments

Kern Council of Governments

Kings County Association of Governments

Madera County Transportation Commission

Merced County Association of Governments

Metropolitan Transportation Commission /  
Association of Bay Area Governments

Sacramento Area Council of Governments

San Diego Association of Governments

San Joaquin Council of Governments

San Luis Obispo Council of Governments

Santa Barbara County Association  
of Governments

Shasta Regional Transportation Agency

Southern California Association of Governments

Stanislaus Council of Governments

Tahoe Regional Planning Agency

Tulare County Association of Governments

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California Department of Public Health

California Department of Transportation

California State Transportation Agency

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# Acronyms

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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
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
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
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
TRPA	Tahoe Regional Planning Agency
VMT	Vehicle Miles Traveled
ZEV	Zero-Emission Vehicle

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# Executive Summary

Californians are driving more than ever – leading to more pollution, higher costs, more roadway fatalities, and worse daily experiences getting around – despite State planning statutes that encourage better transportation and planning decisions. The core problem is that even well-made plans too often remain just that – plans. The gap between intention and action impairs our daily quality of life and harms communities that have already borne the brunt of past car-dependent planning. Changing this status quo demands sustained investments in housing, transit, and walking<sup>1</sup> and biking infrastructure, as well as durable changes in how State, regional, and local governments fund and implement transportation and land use policies and projects. California’s worsening climate and air quality conditions warrant bold efforts. This report documents these worrying trends, and highlights opportunities for immediate action.

Specifically, this report assesses implementation of the [Sustainable Communities and Climate Protection Act](#), Senate Bill (SB) 375, passed in 2008.<sup>2</sup> SB 375 is a first-of-its-kind law to recognize the necessary role of integrating transportation, land use, and housing decisions to reduce driving in order to achieve California’s climate goals. The law requires each of California’s 18 regional metropolitan planning organizations (MPOs) to develop a sustainable communities strategy (SCS). The SCS is part of the region’s long-range regional transportation plan (RTP) and identifies strategies 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, MPOs have considered the provision of housing that is affordable at all income levels and closer to jobs, transit, parks, schools, and other key destinations; the expansion of transit and active transportation options; and how to speed adoption of zero-emission vehicles (ZEVs). The SB 375 GHG emission reduction targets are measured per capita, allowing regions to grow at their own paces, while using various strategies to enable people to drive less and reduce per capita vehicle miles traveled (VMT) while also accounting for the impacts of regional and local efforts to increase the use of ZEVs.

Implementation of SCS plans is necessary to achieve the State’s climate goals. As discussed in the development of CARB’s 2022 Scoping Plan Update, ZEVs are not enough to meet State climate targets. Even with implementation of Executive Order N-79-20<sup>3</sup> and CARB’s Advanced Clean Cars II Regulations<sup>4</sup> phasing out the sale of new internal combustion engine (ICE) vehicles by 2035, 30 percent of light-duty vehicles on the road in 2045 will still burn fuel and all vehicles will still produce particulate emissions from brake and tire wear, which will impact communities where those vehicles are driven long into the future. Delivering on the SCS development patterns and transportation systems will directly reduce GHG emissions from cars and will also reduce energy demand from buildings and infrastructure and increase carbon sequestration in natural and working lands.<sup>5</sup> The latest Scoping Plan scenario modeling shows that in 2019, Californians drove an average of 24.6 miles daily; and that this figure needs to be cut to no more than 18.4 miles by 2030 and to 17.2 miles by 2045 to achieve California’s climate goals.

1 References to walking in this report are 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).

2 SB 375 (Steinberg, Chapter 728, Statutes of 2008).

3 Governor Newsom. Executive Order N-79-20. September 2020. <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf>

4 For more information on the Advanced Clean Cars II regulations adopted by CARB’s board on August 25, 2022, see: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii>

5 California Air Resources Board. Final 2022 Scoping Plan Appendix E Sustainable and Equitable Communities. November 2022. Page 5-6. Available at: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-e-sustainable-and-equitable-communities.pdf>



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 entrenched inequities experienced by California’s black, indigenous, people of color (BIPOC), low-income, and underprivileged communities. Success will require shifting California’s development patterns and transportation systems to address injustices by making livable, affordable homes with multi-modal connections to jobs, services, open space, and education available to all Californians, not just the wealthier, more homogeneous communities. Implementation of SCSs is therefore also central to advancing equity. But successfully making 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<sup>6</sup> 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.<sup>7</sup> 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 or no progress in meeting the targets through 2019. While some 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 to reverse 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 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. This report summarizes these findings.

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6 SB 150 (Allen, Chapter 646, Statutes of 2017).

7 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](https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf).

## Key Metrics Findings

**California is still not reducing GHG emissions from personal vehicle travel as needed to meet climate commitments and as targeted 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 in the course of their daily lives, and despite efforts to promote cleaner cars and fuels, per capita GHGs continue to rise. 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.

**More Californians are choosing to drive over other options.**

In general, from 2005 to 2019, Californians continued to drive more, and carpool less, when traveling to work. The State and other jurisdictions have continued to expand all types of roadways, although investing in an auto-oriented transportation network and growth pattern can induce additional VMT.<sup>8</sup> 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 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 increase ridership at the levels planned in SCSs.

**New growth has generally been more compact, except in the San Joaquin Valley, but most residents in each region still cannot walk to key destinations.**

Overall development has become more compact since 2005,<sup>9</sup> with the average amount of land being newly urbanized for each new resident declining over time. However, the pattern differed substantially between rural and urban regions. The four largest MPO regions<sup>10</sup> 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.



8 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](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)

9 Measured in persons/developed acre.

10 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).

## **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 housing affordable to low-income and very low-income households. In all regions, above moderate-income housing is being built at a faster rate than moderate-, low-, and very low-income housing. Although new housing for any income level is better than a failure to build at all, it is essential to address the deepest housing needs and widest gaps. If not reversed, this trend of not building enough homes, particularly for the lowest-income Californians, risks worsening housing cost burdens and could exacerbate homelessness. 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.

[Appendices A](#) and [B](#) include detailed information on the data used, as well as charts on the statewide and regional-level results for all report metrics.

## Key Themes of SB 375 Challenges & Opportunities

To gain insights into 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 at every level of government to support and ensure SCS implementation. These interviews revealed several overarching themes:

**Achieving SB 375 GHG reduction targets requires a stronger focus on implementation.** SB 375 has been an important but incomplete tool to coordinate regional land use and transportation planning. No matter how robust, regional plans alone cannot reduce emissions. They must be coupled with the resources, policies, and political will to implement their identified strategies. It is critical that the State focus attention on authorizing and funding strategies and 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 and land use patterns. This is consistent with the latest SCSs and with academic research and CARB analysis.<sup>11,12,13</sup>

**SCS implementation requires better alignment across State, regional, and local actions.** SCS implementation relies on local decisions about where to allow development and what types of development to allow, and on regional agency decisions about 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 transportation projects and development decisions that will increase driving. The State also needs to secure additional resources to provide support, guidance, targeted funding, and policy tools to make it easier and less costly to implement this reprioritization.

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11 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>

12 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>

13 California Air Resources Board. 2022 Scoping Plan for Achieving Carbon Neutrality Appendix E Sustainable and Equitable Communities. November 2022. Pages 17 and 24. Available at: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-e-sustainable-and-equitable-communities.pdf>

## Challenges & Opportunities

CARB heard from stakeholders regarding remaining challenges and the need for additional action. This report organizes discussion of challenges and stakeholder recommendations for potential near-term actions to address them, that CARB agrees are appropriate, 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 plans. Key opportunities to respond to this challenge are investment and flexible funding sources 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 relative to cars for everyday trips will require additional tools and innovation. Two key opportunities to respond to this challenge are authorizing transportation pricing and optimizing the transit experience.
- **Transportation Planning and Investments:** Funding the transportation planning and projects that implement the SCS continues to be challenging. 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. Key opportunities to respond to these challenges include 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. Key opportunities to respond to challenges in this area are 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 vehicles 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 to implement SCS strategies. 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 far better and more inclusive by doing so before time runs out.<sup>14</sup> CARB heard from many stakeholders that a helpful next step would be for the State and Legislature to identify and resource a stronger implementation framework for SB 375 that brings together regional and local government agencies, community groups, and the private sector to prioritize the proposed actions in this report, identify associated accountability measures for the prioritized actions, and advance and monitor the policy work to implement them.

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14 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. Lösschke, 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.<sup>15</sup> SB 375 is a first-of-its-kind law to recognize the critical need for integrating transportation, land use, and housing decisions to help achieve State climate goals. It requires all levels of government to work to achieve a more sustainable, equitable future. The law requires each of California's 18 regional metropolitan planning organizations (MPOs),<sup>16</sup> shown in Figure 1, to include a sustainable communities strategy (SCS) in its long-range regional transportation plan (RTP). The SCS identifies strategies to deliver sustainable development patterns and transportation systems that 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.

In developing SCS plans, MPOs 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, but also include the impacts of regional and local efforts to increase ZEVs.

Implementation of SCS plans in each region is essential to meeting the State's climate, air quality, and equity goals and requires action by all levels of government. As discussed in the development of CARB's most recent 2022 Scoping Plan Update, ZEVs are not enough to solve the climate crisis. Even with Executive Order N-79-20<sup>17</sup> and CARB's Advanced Clean Cars II Regulations<sup>18</sup> phasing out the sale of new internal combustion engine (ICE) vehicles by 2035, 30 percent of light-duty vehicles on the road in 2045 will be older and still burn fuel, and all vehicles will produce particulate emissions from brake and tire wear. All of this will impact communities where those vehicles are driven long into the future. Beyond having a direct impact on GHG emissions from cars, more compact development and increased transportation choices to reduce VMT also support emissions reductions in other sectors. This could include reducing energy demand from buildings and infrastructure and supporting carbon sequestration in natural and working lands.<sup>19</sup> The latest Scoping Plan scenario modeling shows that in 2019, Californians drove an average of 24.6 miles daily; and that this figure needs to be cut to no more than 18.4 miles by 2030 and to 17.2 miles by 2045 to help achieve California's climate goals.

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15 SB 375 (Steinberg, Chapter 728, Statutes of 2008).

16 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 (SJCAG), 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).

17 Governor Newsom. Executive Order N-79-20. September 2020. <https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf>

18 For more information on the Advanced Clean Cars II regulations adopted by CARB's board on August 25, 2022, see: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii>

19 2022 Scoping Plan for Achieving Carbon Neutrality Appendix E Sustainable and Equitable Communities. November 2022. Pages 17 and 24. Available at: <https://ww2.arb.ca.gov/sites/default/files/2022-11/2022-sp-appendix-e-sustainable-and-equitable-communities.pdf>

**FIGURE 1. MAP OF 18 MPO REGIONS IN CALIFORNIA**





Not only will California need full implementation of strategies in the SCSs and their associated VMT reductions to make progress toward these goals, the State will also need to identify ways to get even more emission reductions from transportation and land use strategies to reduce VMT sufficiently by 2030 and 2045.

California has an opportunity to support climate and public health goals by making better places 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 historical racist or discriminatory policies and practices<sup>20,21</sup> that segregated communities of color and benefited white suburban commuters. These historical 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.<sup>22,23</sup> When people must drive long distances to meet daily needs, it can burden their budget,<sup>24</sup> impact their social mobility by affecting their ability to get to work or school,<sup>25,26</sup> keep them away from their family, and impact their personal health,<sup>27,28,29,30,31</sup> among other negative impacts. 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, open space, and education is an opportunity to address existing inequities. Pursuing these changes can give all Californians, not just the wealthier, more homogeneous communities, healthy lives with better access to economic and social opportunities. The good news is that actions are being pursued in some regions to directly address ongoing inequities through regional planning efforts. State, regional, and local governments need to build on and accelerate this work.

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- 20 Richard Rothstein. *The Color of Law: A Forgotten History of How Our Government Segregated America*. 2017.
- 21 CalEPA. Pollution and Prejudice: Redlining and Environmental Injustice in California. 2021. <https://storymaps.arcgis.com/stories/f167b251809c43778a2f9f040f43d2f5>.
- 22 How Zoning Restrictions Make Segregation Worse, <https://www.bloomberg.com/news/articles/2016-01-04/how-zoning-restrictions-make-segregation-worse>.
- 23 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](https://ww2.arb.ca.gov/sites/default/files/2021-12/2020_Mobile_Source_Strategy.pdf).
- 24 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>.
- 25 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>.
- 26 Lucas, K. (2012). Transport and social exclusion: Where are we now? *Transport Policy*, 20, 105-113.
- 27 Behzad, B., King, D., & Jacobson, S. (2012). *Quantifying the Association between Obesity, Automobile Travel, and Caloric Intake*. *Preventative Medicine*, 56 (2), 103-106.
- 28 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.
- 29 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.
- 30 Gee, G., & Takeuchi, D. (2004). *Traffic stress, vehicular burden and well-being: A multilevel analysis*. *Social Science & Medicine*, 59, 405-414.
- 31 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).

## About This Report

In 2017 the Legislature passed SB 150<sup>32</sup> 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.<sup>33</sup>

This is the second report to the Legislature on progress under SB 375. 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 construction by income level, housing 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

Fuel Price

Lane Miles Built

Transit Ridership Per Capita

Transit Revenue Hours Per Capita

### Is New Development More Compact?

Acres Developed Per 1,000 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

32 SB 150 (Allen, Chapter 646, Statute of 2017).

33 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](https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf).

## 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

Appendices A and B include detailed information on the data used, as well as charts on the statewide and regional-level results for all report metrics.

The 2022 report also expands reporting on metrics to understand equity in outcomes, in recognition of the fact 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 and low-income communities as designated per SB 535<sup>34</sup> and Assembly Bill (AB) 1550<sup>35</sup> 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 communities. This report also includes several metrics to track housing affordability and investment spending.

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 success stories 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. Between June 7 and July 14, 2022, CARB staff released a Draft 2022 Progress Report and new data dashboard for public comment and received 14 comment letters with information and viewpoints that primarily served to strengthen the "Remaining Challenges and Need for Further Action" portion of this report.<sup>36</sup>

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 identifies actions that could help overcome identified challenges.

34 SB 535 (De León, Chapter 830, Statutes of 2012).

35 AB 1550 (Gomez, Chapter 369, Statutes of 2016).

36 View comments received on CARB's webpage here: <https://ww2.arb.ca.gov/resources/documents/tracking-progress>



# Is California Meeting SB 375 Climate Goals?

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## Have GHGs from Personal Vehicle Travel Declined?

**California is still not reducing GHG emissions from personal vehicle travel as needed to meet climate commitments and as targeted 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 more miles each day on average. Efforts to expand accessibility to destinations and non-auto travel choices and to accelerate the pace of vehicle electrification 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.<sup>37</sup> 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.<sup>38</sup> Combined across regions, SB 375 climate targets aim to achieve about a 19 percent reduction in per capita GHG from personal vehicle travel statewide by 2035, relative to 2005. Figure 2 shows the latest statewide data.<sup>39</sup>

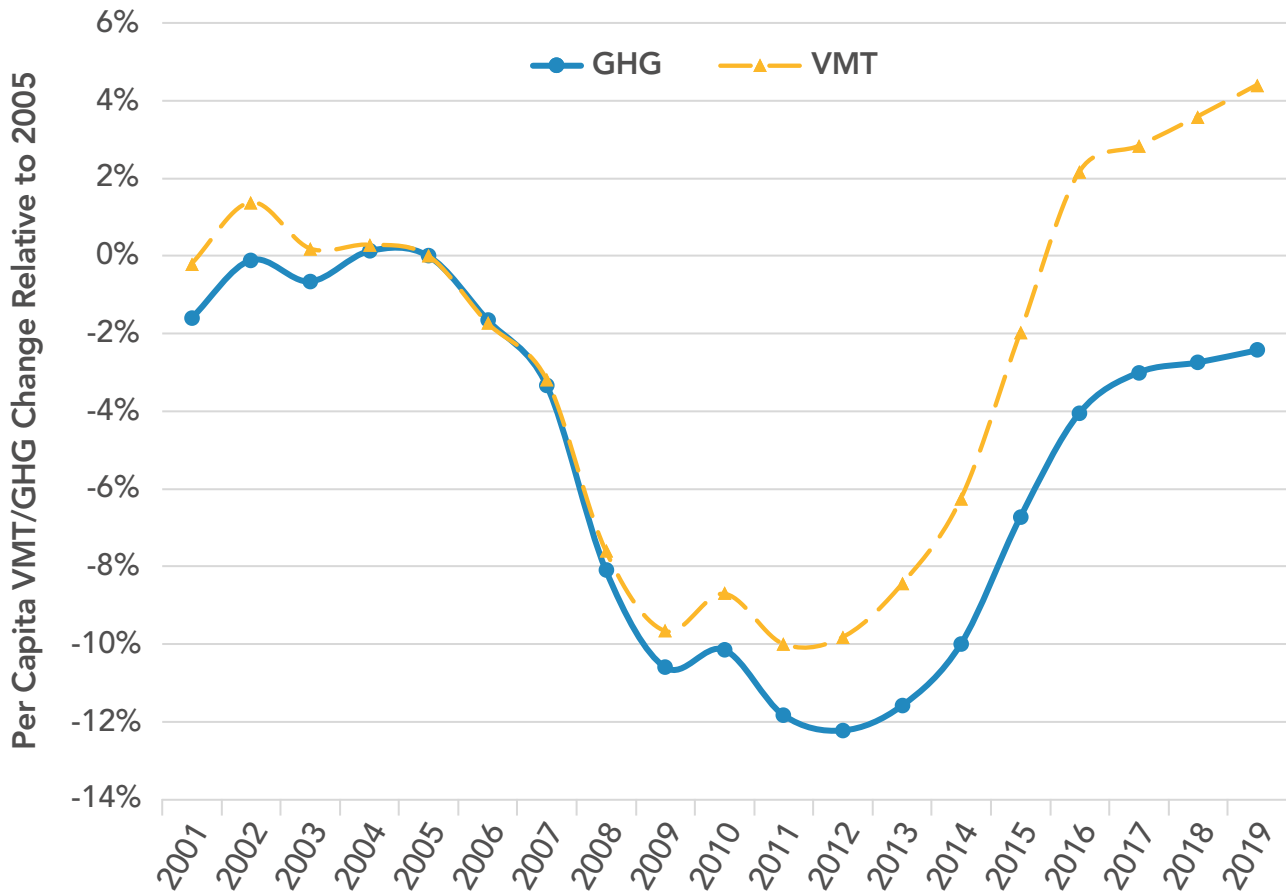
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37 California Air Resources Board. *2018 Progress Report: California's Sustainable Communities and Climate Protection Act*. Available at: [https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report\\_SB150\\_112618\\_02\\_Report.pdf](https://ww2.arb.ca.gov/sites/default/files/2018-11/Final2018Report_SB150_112618_02_Report.pdf)

38 GHG emissions considered under the SB 375 program reflect carbon dioxide (CO<sub>2</sub>) emissions only from light-duty passenger vehicles traveling within California's 18 MPO regions, which together account for 81 percent of the statewide light-duty VMT.

39 Data beyond 2019 were not available for this analysis.

**FIGURE 2. LIGHT-DUTY VMT AND GHG PER CAPITA RELATIVE TO 2005**  
**(CALIFORNIA'S 18 MPO REGIONS AGGREGATED)<sup>40, 41</sup>**



**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.<sup>42, 43</sup>

40 Ibid.

41 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.

42 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://ww2.arb.ca.gov/sites/default/files/2020-06/SB375\\_Updated\\_Final\\_Target\\_Staff\\_Report\\_2018.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375_Updated_Final_Target_Staff_Report_2018.pdf).

43 In the SB 375 program, CARB estimates GHG emission reductions by looking at changes in estimated passenger VMT that are expected to result from implementation of SCS plans. CARB converts VMT into CO<sub>2</sub> 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 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 State policy and regulatory measures that will reduce GHG emissions, such as the Advanced Clean Cars II regulations, to ensure those benefits are additional.

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 and SBCAG regions, and the largest increases in per capita GHG relative to 2005 are in the KCAG and TCAG regions.<sup>44</sup>

**TABLE 1. COMPARISON OF 2019 GHG PER CAPITA LEVELS TO SB 375 TARGETS BY REGION<sup>45</sup>**

MPO	CARB Estimated Change in GHG per Capita 2005-2019 (%)	2020 SB 375 GHG Reduction Target (%)	2035 SB 375 GHG Reduction Target (%)
MTC/ABAG (Bay Area)	-1%	-10%	-19%
SACOG (Sacramento)	-5%	-7%	-19%
SANDAG (San Diego)	-3%	-15%	-19%
SCAG (Los Angeles)	-4%	-8%	-19%
Fresno COG (FCOG)	0%	-6%	-13%
Kern COG (KCOG)	1%	-9%	-15%
Kings CAG (KCAG)	26%	-5%	-13%
Madera CTC (MCTC)	1%	-10%	-16%
Merced CAG (MCAG)	-4%	-10%	-14%
San Joaquin COG (SJCOG)	-1%	-12%	-16%
Stanislaus COG (StanCOG)	-3%	-12%	-16%
Tulare CAG (TCAG)	12%	-13%	-16%
AMBAG (Monterey Bay)	-4%	-3%	-6%
Butte CAG (BCAG)	1%	-6%	-7%
San Luis Obispo COG (SLOCOG)	-1%	-3%	-11%
Santa Barbara CAG (SBCAG)	-6%	-13%	-17%
Shasta RTA (SRTA)	0%	-4%	-4%
Tahoe RPA (TRPA)	-10%	-8%	-5%

44 Data show California was not on track through 2019, but many regions met their GHG reduction targets in 2020. This is likely due to the steep decline in travel activity in 2020 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. Transit ridership, which was also heavily affected by stay-at-home orders and other personal choices in response to the pandemic, has not recovered at the same pace as VMT.

45 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 & LAND USE REMAIN UNCERTAIN

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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<sup>46</sup> prior to the pandemic, and the pandemic has greatly accelerated the decline (see “What is Happening on the Ground?” below)<sup>47</sup>. 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<sup>48</sup>.

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<sup>49</sup>.

Another example is the San Joaquin Regional Transit District expanding its ondemand rideshare pilot countywide right before the pandemic<sup>50,51</sup> and maintaining service with some modifications to routes throughout the pandemic. This effort shows how transit service can be creative and flexible to meet transportation needs and reduce VMT in more rural regions. When planning 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 such as based on race and gender<sup>52,53</sup> and to optimize fixed-route services with innovative solutions that improve efficiency.<sup>54</sup>

### 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 continue to be lower per capita, as some employees will work remotely permanently or at an increased level post-pandemic. However, remote work has generated new and different discretionary vehicle trips<sup>55</sup> and traffic levels have been slowly rising toward pre-pandemic

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46 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>

47 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>

48 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/>

49 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>

50 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>

51 San Joaquin Regional Transit District. (n.d.) Modified Service Change. <https://sanjoaquinrtd.com/modified-service-change/>

52 Schmidt, 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/>

53 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/>

54 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/>

55 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>



levels despite elevated amounts of remote work<sup>56</sup>, reinforcing the need for other strategies to reduce overall VMT.

As regions pursue SCS strategies around working from home, telehealth, and ecommerce, 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)<sup>57</sup>, and online classes or job training (21 percent). 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,<sup>58</sup> 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<sup>59</sup>. Notably, nearly 200,000 households with school-age children (7 percent) did not have home access to a device.<sup>60</sup>

## Unemployment and Housing

Some employment sectors were severely disrupted by the pandemic, contributing to a rise in unemployment.<sup>61</sup> California entered the pandemic in a housing crisis, which was then exacerbated by the pandemic's

employment loss and resulting housing insecurity.<sup>62</sup> Housing costs and competition for housing remain high in the state. Households have had to repurpose space to accommodate remote learning and work, while some homebuyers have opted for more square footage for home offices and open space away from cities. As the trends around housing and employment opportunities continue to fluctuate, there is a continued need to support ways to make daily needs accessible in communities where people live and now work given that people may not be commuting like they used to, as well as to enhance 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.<sup>63</sup> 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.<sup>64,65</sup> 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.<sup>66</sup> Communities could continue to enhance the public realm by repurposing streets to support public space and walkability.

56 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>

57 Ibid.

58 Public Policy Institute of California. (February 2021). California's Digital Divide Factsheet. Available at: <https://www.ppic.org/wp-content/uploads/jtf-californias-digital-divide.pdf>

59 Ibid

60 Ibid

61 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>.

62 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>

63 National Association of City Transportation Officials. 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](https://nacto.org/wp-content/uploads/2020/09/Streets_for_Pandemic_Response_Recovery_Full_20-09-24.pdf)

64 Ibid

65 County of Los Angeles Public Works. Outdoor Dining – COVID-19 Temporary Outdoor Dining Program. <https://pw.lacounty.gov/outdoor-dining/>

66 City of Oakland. Oakland Slow Streets – Essential Places. <https://www.oaklandca.gov/projects/oakland-slow-streets>



# What is Happening on the Ground?

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The answer to the question concerning 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?

The short answer is no. 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 continued 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 proportion of driving alone, as compared to other modes such as transit, decreased from 2005 to 2019. To review data trends by MPO region, see Appendix A.

**California 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 by 5.4 percent. While jurisdictions expand roadways for several reasons (e.g., to accommodate cars, freight, safety, carpooling, buses on shoulders), the research literature shows that added roadway capacity often induces additional VMT and GHG emissions.<sup>67</sup> 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, which could increase GHG emissions and VMT in the long term.

**Household vehicle ownership increased.** The data showed a steady increasing trend of household vehicle ownership 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 relative to the general population from 2010 to 2019.

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

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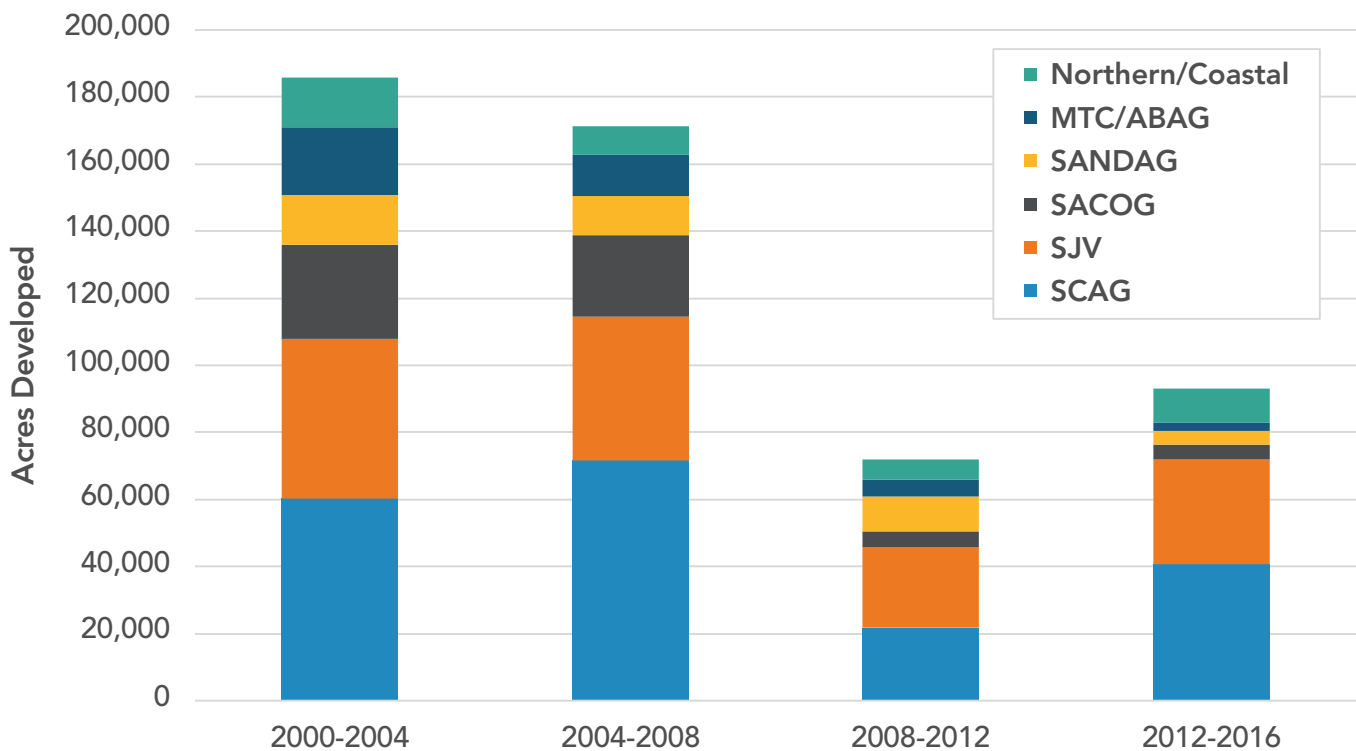
<sup>67</sup> S. Handy, M. Boarnet. 2014. Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions. Available at: [https://ww2.arb.ca.gov/sites/default/files/2020-06/Impact\\_of\\_Highway\\_Capacity\\_and\\_Induced\\_Travel\\_on\\_Passenger\\_Vehicle\\_Use\\_and\\_Greenhouse\\_Gas\\_Emissions\\_Policy\\_Brief.pdf](https://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)

## Is New Development More Compact?

The results are mixed. New growth has generally been more compact, except in the San Joaquin Valley. One way to reduce the need to drive long distances is to locate 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. Specifically, CARB looked at the number of 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 3.

**FIGURE 3. LAND NEWLY URBANIZED<sup>68,69</sup>**

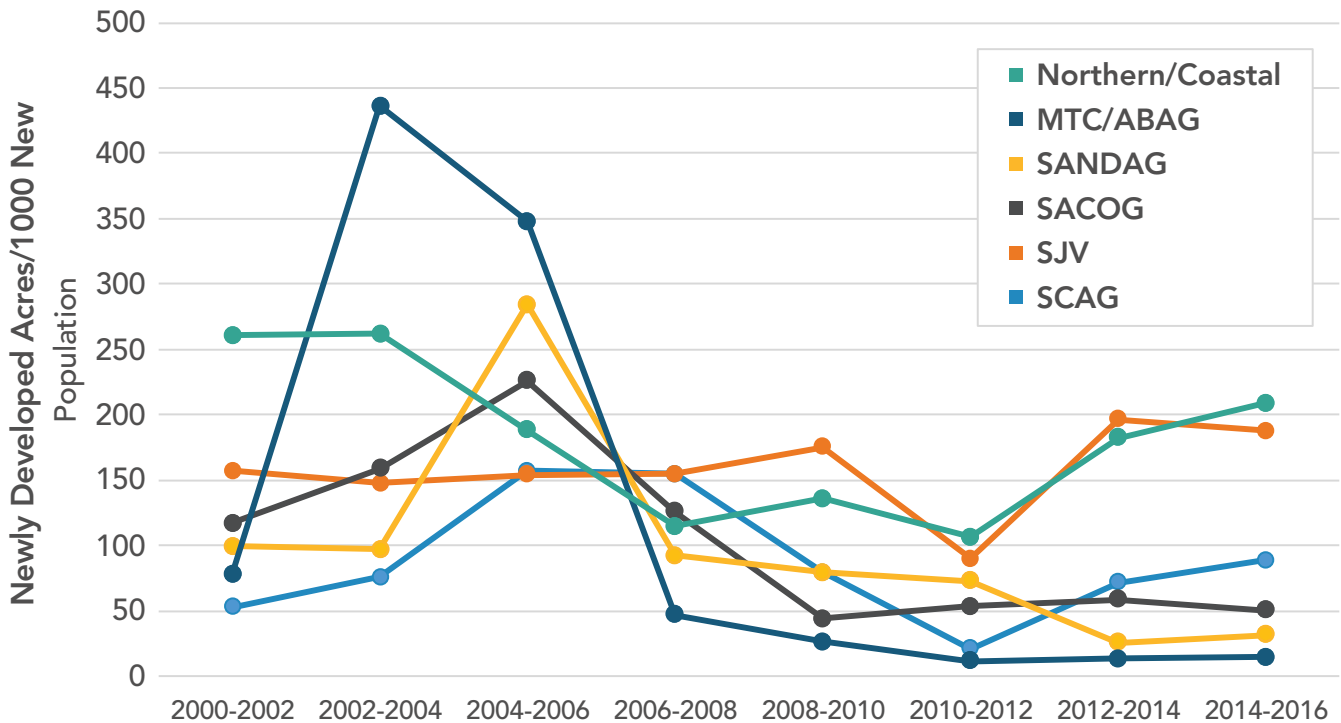


68 The dataset used for this analysis, the Farmland Mapping and Monitoring Program, describes urbanized land as land that is occupied by an average of at least 1 structure per 1.5 acres, or approximately 6 structures for every 10 acres, and is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, or other developed purposes.

69 “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.

In part, this reflects lower amounts of development, such as a decline in home construction (Figure 5), as well as land being used more efficiently (Figure 4). Overall development has become more compact since 2005,<sup>70</sup> with the average amount of land being newly urbanized for each new resident declining over time (Figure 4). However, the pattern differed substantially between rural and urban regions. New development in the four largest MPO regions<sup>71</sup> has increased in compactness substantially since 2005, while in the San Joaquin Valley MPO regions, it has become less compact (Figures 3 and 4). To review individual data trends by MPO region, see Appendix A.

**FIGURE 4. TOTAL NEWLY DEVELOPED ACRES PER 1,000 NEW RESIDENTS**



The most recent 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 homes that do not meet all of 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, which reflect more compact development. This trend arises from a range of causes, including historical race-based redlining and exclusionary practices, but reforms have begun.

<sup>70</sup> This was measured as newly developed acres/1000 new residents.

<sup>71</sup> The four largest regions are MTC/ABAG, SCAG, SACOG and SANDAG.

**Since 2017, the numbers of 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) suggest agricultural land loss may be on the rise in some MPO regions,** especially in the Valley. 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.

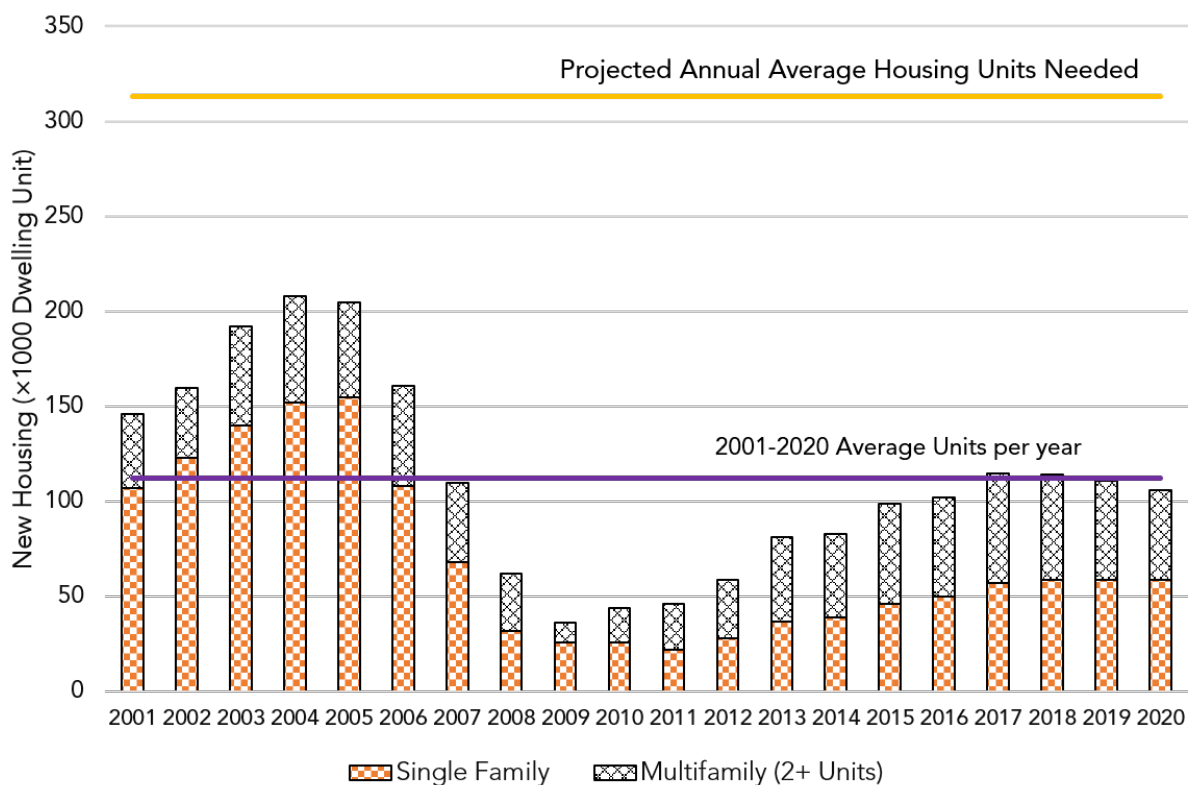
**The acreage of protected natural and working lands has been slowly and continuously increasing in most MPO regions.** Protecting natural and working landscapes can help keep growth in existing developed areas, which is generally supportive of SCS strategies. This land can be conserved by a non-profit 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?

The short answer is no. 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. The results are summarized here.

**Housing unit production continues to fall short of projected housing demand.** As shown in Figure 5, statewide annual growth in housing units has remained below 100,000 homes. According to the California Department of Housing and Community Development (HCD), California needs approximately 2.5 million new housing units over the next eight-year housing needs cycle (RHNA) to meet projected population and household growth.<sup>72</sup> 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 housing for very low- and low-income households.

**FIGURE 5. NET GROWTH IN ANNUAL HOUSING UNITS IN CALIFORNIA BY YEAR**



72 Statewide Housing Plan, California Dept of Housing and Community Development (2022): <https://storymaps.arcgis.com/stories/94729ab1648d43b1811c1698a748c136> (accessed 04/12/2022)

**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 housing affordable to low- and very low-income households.** Although new housing for any income level is better than a failure to build at all, it is essential to address the deepest housing needs and widest gaps. This mismatch between demand and supply further contributes to already high and inequitable housing cost burdens for lower-income groups. Historically, housing unit production has been led by local agencies and the development community. Local agencies regulate housing development in their communities and can provide incentives and/or disincentives for certain types of development. The private development community decides whether to construct this housing or not. In recent years, some MPO regions have also started implementing funding and technical assistance actions to support strategies within a region to support multiple regional goals, 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 under development and are not yet certified. Sixth 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.<sup>73</sup> Looking ahead, 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<sup>74</sup> 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 housing 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.

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<sup>73</sup> AB 686 (Santiago, Chapter 958, Statutes of 2018).

<sup>74</sup> 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.

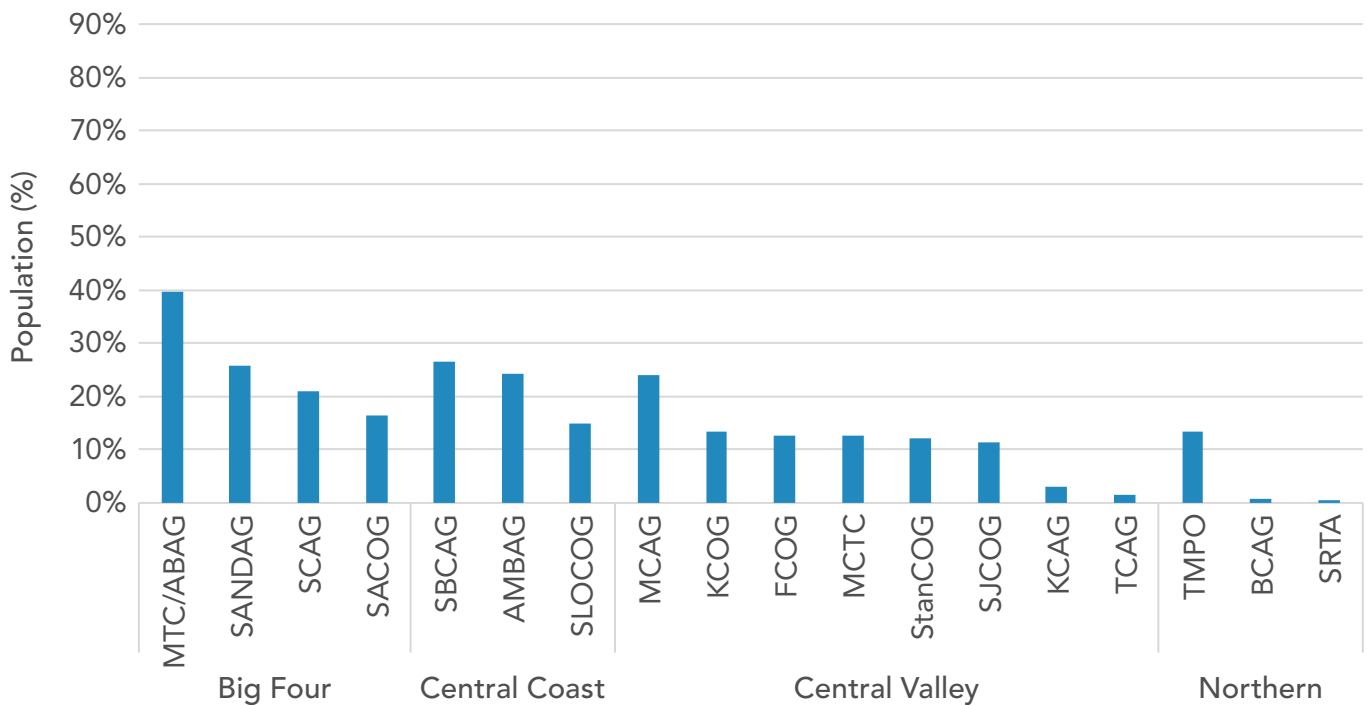


## Are Daily Needs Accessible in Neighborhoods?

The short answer is no. CARB 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. The results are summarized here.

**Less than half of the population in every region can access all four key destinations within a 15-minute walk.**<sup>75</sup> Figure 6 shows the variation between MPO regions by the percentage of people who have access to the four key destinations.

**FIGURE 6. PERCENTAGE OF POPULATION BY MPO REGION WITH ACCESS TO ALL FOUR KEY DESTINATIONS (PARK/OPEN SPACE, EDUCATIONAL FACILITY, TRANSIT STOP, GROCERY STORE) WITHIN A 15-MINUTE WALK<sup>76</sup>**



<sup>75</sup> Walking is 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). This analysis did not examine the adequacy of the infrastructure or the presence of access barriers like broken sidewalks.

<sup>76</sup> See footnote 75.

**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.** Far from only affecting VMT and GHG emissions, access to these key destinations can have far-reaching effects on health, employment, education, and other outcomes. For instance, food deserts, defined as low-income areas without sufficient grocery store access, are associated with poorer health outcomes, including obesity and diabetes.<sup>77</sup>

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 foot. To review data trends by MPO region, see Appendix A.

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<sup>77</sup> For additional information, see *Improving Food Access in California: Report to the California Legislature*, available at [https://www.cdfa.ca.gov/exec/public\\_affairs/pdf/ImprovingFoodAccessInCalifornia.pdf](https://www.cdfa.ca.gov/exec/public_affairs/pdf/ImprovingFoodAccessInCalifornia.pdf).

## What Other Factors May Have Affected Personal Vehicle Travel?

It is important to acknowledge that other factors determined at the macro level, such as changes in the economy, 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.

As shown in Figure 2, there was a notable downturn in VMT and GHG between 2005 and 2012 and sharp increase since 2012, which also coincides with changes in the economy, including a major economic recession and recovery.

Both gas prices and employment have continued to change over time with considerable variability since 2005. From January 2005 to January 2019,<sup>78</sup> 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 and incentivized additional VMT. This is strikingly different from the rise seen as of 2022.<sup>79</sup>

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, when unemployment hit the lowest levels experienced since 2005. Total available jobs during this 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,<sup>80</sup> the price of gas in California had increased to \$5.69 per gallon in nominal dollars, which, if part of a lasting trend, would be one of the most significant changes to the cost of driving seen since 2005.

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78 U.S. Energy Information Administration, [https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=emm\\_epm0\\_pte\\_sca\\_dpg&f=m](https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=emm_epm0_pte_sca_dpg&f=m).

79 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.

80 Ibid.



# What Has Been Done That Supports Implementation?

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Since the 2018 Progress Report, there have been ongoing State transportation and housing policy developments with implications for SB 375, including the historic 2022 legislative session that saw enactment of multiple supportive laws addressing housing, infill, and sustainable transportation.<sup>81</sup> While it is too early to know their ultimate impact on SCS implementation, this section identifies key State initiatives through fall 2022 that provide opportunities to support SCS implementation.

## California Climate 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<sup>82</sup> and 2020<sup>83</sup> targeted at reducing GHG emissions in transportation, 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.

The CAPTI details an investment framework with strategies and actions for how the State should invest billions of dollars of transportation funding where State agencies play a role in project selection or nomination. Consistent with the 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.

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81 Among others, notable new laws include AB 2011 (Wicks, Chapter 647, Statutes of 2022), which will incentivize conversion of underutilized and vacant commercial buildings into housing, especially near city centers; and AB 2097 (Friedman, Chapter 459, Statutes of 2022), which removes parking requirements for projects located near public transit stops to make it easier to build new housing closer to transit.

82 Executive Order N-19-19: <https://www.gov.ca.gov/wp-content/uploads/2019/09/9.20.19-Climate-EO-N-19-19.pdf>

83 Executive Order N-79-20: <https://www.library.ca.gov/wp-content/uploads/GovernmentPublications/executive-order-proclamation/40-N-79-20.pdf>

# 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.<sup>84</sup> The report describes opportunities to better align transportation funding programs with the State’s climate goals. The report demonstrates that California governments have a major opportunity to review and re-prioritize the often decades-old projects in the “pipeline” for funding, projects which often reflect planning ideas and priorities 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 project 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.
- There is a gap between the vision for a more climate friendly and equitable transportation system and actions and infrastructure spending decisions.
- 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.

As a follow-up action SGC released its *California Transportation Assessment Final Report: Summary of Stakeholder Feedback* in August 2022, which identifies eight possible action areas, including opportunities and challenges presented by each potential action.<sup>85</sup>

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<sup>84</sup> AB 285 (Friedman, Chapter 605, Statutes of 2019).

<sup>85</sup> For additional information, see *California Transportation Assessment Final Report: Summary of Stakeholder Feedback*, available at: [https://sgc.ca.gov/resources/docs/20220831-AB\\_285\\_Final\\_Report.pdf](https://sgc.ca.gov/resources/docs/20220831-AB_285_Final_Report.pdf).

## California Air Resources Board – Clean Transportation Incentives

CARB is one of several State agencies whose incentive programs can also support change in this area, and this work remains a strong priority for CARB’s Board.<sup>86</sup> 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 \$213.2 million for clean mobility investments since fiscal year 2014-15.<sup>87</sup>

- Regional Clean Mobility Pilots is a category of funding used to invest in multiple innovative carsharing and clean mobility options community projects. CARB has allocated \$23.9 million, including funding for an Agricultural Worker Vanpools pilot project, to meet the specific mobility needs of rural communities.
- *Clean Mobility Options Voucher Pilot Program (CMO)* is a first-come, first-served voucher program for smaller, shared mobility services and community transportation needs assessments. CARB has allocated \$75.2 million for this program so far.
- *Clean Mobility in Schools (CMIS)* is a competitive grant program focused on the clean transportation needs of public school districts. CARB has allocated \$49.6 million for this program so far.
- *Sustainable Transportation Equity Project (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 allocated \$59.5 million for this program so far.
- Planning and Capacity Building is a category of funding used to support community-led planning and capacity building projects and dedicated, localized technical assistance and outreach. CARB has allocated towards this effort so far.

Finally, the Electric Bicycle Incentives Project (EBIP) is a new pilot under development, which aims to provide rebates to reduce the purchase price for electric bicycles (e-bikes) to income-qualified consumers. CARB has allocated \$13 million for this project so far.

All these clean mobility programs can help support multimodal travel and SCS implementation.

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86 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 State 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”).

87 <https://ww2.arb.ca.gov/our-work/programs/low-carbon-transportation-investments-and-air-quality-improvement-program/low-1>

## Regional Early Action Planning Grants 2.0 (REAP 2.0)

REAP 2.0 is a \$600 million investment program funded from the State General Fund providing 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 and expands the focus by integrating housing and climate goals and allowing for broader planning and implementation investments, including infill-supportive infrastructure. The program, administered by HCD in collaboration with CARB, the Governor's Office of Planning and Research (OPR), and SGC, is intended to meet multiple objectives:

- Accelerating infill development that facilitates housing supply, choice, and affordability
- Affirmatively furthering fair housing
- Reducing vehicle miles traveled
- Facilitating the implementation of adopted regional and local plans to achieve the above objectives

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. Many programs initiated through REAP 2.0 will require ongoing funding to ensure they can be sustained over the long-term. Further work will be needed to identify additional funding sources to fully implement SCSs.

## 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 final 2022-2023 California budget includes \$925 million 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 and adaptive reuse opportunities prioritized by the Newsom Administration and help support much-needed housing production in MPO regions that align with SCS land use assumptions and support implementation of RHNA.

## California Environmental Quality Act (CEQA): Transportation Impacts (SB 743)

SB 743<sup>88</sup> was passed in 2013 and OPR's implementing regulations took effect in July of 2020. The law updated how transportation impacts are assessed under CEQA in California, 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 lead to a significant impact by making vehicle congestion worse, the project developer was required to mitigate that potential congestion to the extent feasible, for example, by widening an intersection. The cost of congestion mitigation often acted as an incentive to build in outlying areas where there was little concern about localized congestion, which reinforced auto dependency and increased overall VMT.

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88 SB 743 (Steinberg, Chapter 386, Statutes of 2013).



Under SB 743, if a project would add a significant amount of vehicle travel (VMT), the project would be deemed to cause a significant transportation impact that would need to be mitigated, to the extent feasible, by implementing VMT reduction strategies. This change in impact measurement supports infill projects in accessible places that feature a mix of uses and travel choices because such projects are less likely to result in a significant VMT-related transportation impact under CEQA. This in turn means that no VMT-related mitigation is required, reducing the cost of the project (as well as potentially reducing the project's GHG emissions).

The SB 743-related update to CEQA supports SCS implementation by favoring development with lower numbers and lengths of vehicle trips and 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.<sup>89</sup>

## 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.

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 funding 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 convenes a statewide IIJA Transportation Implementation Working Group comprised of State and local transportation agencies, the Federal Highway Administration, and other transportation stakeholders.<sup>90</sup> 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.

More recently at the federal level, on August 16, 2022, President Biden signed the Inflation Reduction Act of 2022 (IRA), said to be the largest US investment in history to address climate change. Like the IIJA, IRA spending consistent with VMT reduction will be critical, and the IRA's Neighborhood Access and Equity Grants provides one opportunity to help redesign roadways to make them safer and provide more mobility options for community residents, especially in underserved areas.

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<sup>89</sup> See <https://dot.ca.gov/programs/sustainability/sb-743/caltrans-opr-sb-743-working-group>

<sup>90</sup> For the latest information related to CalSTA's efforts to implement the IIJA with California transportation stakeholders see: <https://calsta.ca.gov/subject-areas/infrastructure-investment-act?msclkid=8b875220c32411e-ca0adbe24ce4dd294>



# Latest Sustainable Communities Strategies

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MPOs have either adopted or are currently working toward development of their third SCSs, and for many it is their first SCS working to achieve the updated targets adopted by CARB in 2018.<sup>91</sup> CARB staff's evaluations show these plans would meet their regional targets if their strategies were fully implemented, consistent with the analysis the Legislature tasked CARB with. However, the evaluations also show the SCSs will not be fully implemented without greater partnership and action at all levels of government, including the State authorizing the resources and tools needed and regional and local agencies implementing the strategies.

This section highlights key GHG reduction 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](#).

## 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 (local governments) 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 support economic development and reduce the cost of housing construction.
- 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 Bay Area Housing Finance Authority. The goals of this agency 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. The agency 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.

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<sup>91</sup> 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](https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375_Final_Target_Staff_Report_%202018_Resolution_18-12.pdf)

## Pricing Strategies

The SCSs of 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
- Parking fees
- Transportation Network Company<sup>92</sup> 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 sustainable transportation options, particularly for under-served communities.

## 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 entities in many of these regions. 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 sustainable transportation 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.

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<sup>92</sup> 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.

## 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.



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# Remaining Challenges and Need for Further Action

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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. CARB heard from stakeholders regarding remaining challenges and the need for further action by the Legislature and partners at every level of government. As such, this *2022 Progress Report* calls for bold action at every level of government to support and ensure SCS implementation. The feedback and insights CARB received revealed two overarching themes.

## **Fulfilling the vision of SB 375 requires a stronger focus on implementation.**

SB 375 has been an important tool to coordinate regional land use and transportation planning. However, no matter how robust, regional plans alone cannot reduce emissions. Fulfilling the SB 375 vision of coordinated transportation and land use 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. This implementation focus must be coupled with resources and measures to implement SCSs' recommended strategies, and these resources and measures need to provide enough flexibility to support the range of approaches identified in SCSs, which cover rural to urbanized areas that face differing mobility, safety, and goods movement contexts. It is critical that the State focus attention on authorizing and funding strategies and provide other policy tools that support implementation. Regions need funding that is flexible enough to support transportation, land use, or housing investments, along with additional financing options. Expanding funding flexibility to pilot innovative approaches within and between regions through stronger partnership is needed.

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, academic research, and CARB analysis.<sup>93,94</sup>

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93 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>

94 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>

## **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. Many issues contribute to a lack of implementation, with variation across the regions. Challenges include a lack of funds, and, in many regions, there is not enough coordination between local plans, project implementation and the SCSs. For example, local land use decisions and State investments do not always align with the SCS assumptions in regional plans.

One reason for this, as described in SGC's recent California Transportation Assessment Report, developed pursuant to AB 285, is competing State goals, plans, and programs where proposed actions advance one goal, but are in apparent conflict with others. An example of this affecting SCS implementation is when agencies must consider transportation projects that improve public safety, but these same projects could increase emissions. Another is when agencies are asked to reconcile the need for more growth in low-VMT areas with equity goals and the statewide framework to affirmatively further fair housing. This can occur in locales where increasing affordable housing in high-resource neighborhoods might mean putting growth in comparatively higher-VMT areas that could also increase emissions. State guidance on what to do in these situations and additional technical support to identify creative solutions could help local leaders find ways to balance or reconcile these goals and encourage application of the goals more consistently between communities or even on a project-by-project basis.

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 clarify policy and better align State goals and programs, revisit and reprioritize public funds 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. Furthermore, to truly achieve the State's commitment to equity, there needs to be prioritization of under-served community needs in all land use and transportation policies and investments.

The following section further discusses specific challenges raised by stakeholders and identifies potential actions organized by four main strategy areas: *Land Use and Housing*, *Transportation System Management*, *Transportation Planning and Funding*, and *New Mobility and Electric Vehicles*.<sup>95</sup> Each MPO region is unique, and challenges to SCS implementation vary throughout the state. Not all strategy areas apply to every MPO region. The actions identified are offered as potential first steps for addressing the challenges. It will be appropriate to consider the actions through a stakeholder process to assign prioritization, timelines, and responsible parties.

As part of the Draft 2022 Progress Report public comment period in summer 2022, CARB received several requests to add implementation paths for the potential actions to the report, with the intent of addressing the implementation challenges of SB 375. Stakeholders identified different ideas for how to tackle this: some asked CARB to identify potential responsible parties, timelines, funding sources, and next steps for the Legislature in the report; others asked that the State create a working group focused on prioritizing and advancing the proposed actions in the report, along with those in CARB's recent 2022 Scoping Plan and SGC's AB 285 report with regional agencies and other key stakeholders; and still others requested that the report urge the Legislature to provide CARB with the funding and regulatory tools to enforce needed GHG and VMT reductions. Ultimately, CARB did not choose to address any of these approaches in this report as they go beyond the report's scope and current resource constraints but agree that a state-level process to prioritize actions and develop a framework for implementation would be valuable.

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<sup>95</sup> The Final 2022 Scoping Plan includes Appendix E: Sustainable and Equitable Communities which is a framework for State action on VMT to help achieve 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.



Indeed, these requests serve as evidence that CARB’s original 2018 Progress Report recommendation for the Legislature to help advance an implementation framework on GHG reductions from VMT remains unaddressed. SB 526 (Allen, 2019) sought to address this but was not enacted into law.<sup>96</sup> There have been several separate key State transportation and housing policy developments since the 2018 Progress Report with positive implications for SB 375, discussed earlier in this report in “What Has Been Done That Supports Implementation?”. Yet, coordinated leadership that involves all entities with integral roles on this topic has not naturally emerged. Realizing the transformational change envisioned by the SCSs will require the State to identify and properly resource a stronger implementation framework for SB 375 that brings together regional and local government agencies, community groups, and the private sector. Such an effort should prioritize actions identified in the following section, identify associated accountability measures for the prioritized actions, and advance and monitor the policy work to implement them.

Mendota residents speak to CARB staff outside of Restaurante & Pupusería Morenita, during an Environmental Justice Advisory Committee toxics tour. Fresno, California – October 24, 2022.



<sup>96</sup> This bill would have established an interagency working group for the purpose of developing and implementing State actions to ensure that regional growth and development is designed and implemented in a manner that will help achieve the state’s environmental, equity, climate, health, and housing goals. The bill died after being referred to appropriations and being held on suspense.

## Land Use and Housing

Development patterns in many parts of California currently make it difficult for people to get around via public transit and active transportation to meet daily needs. By making daily needs more accessible by these modes, land use strategies that address how communities are designed can enable long-term reductions in GHG emissions and VMT. 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 these strategies 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

Many local agencies have not successfully advanced infill and climate-friendly development as needed, even with many regions identifying priority areas in the SCSs to do that. 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 for new homes, shops, and workplaces to be located within priority growth areas, in both urban and rural areas that allow for shorter trips by bringing jobs and daily needs closer to homes.

#### Potential Actions

- The Legislature could expand existing funding programs and establish new ongoing funding to local agencies for housing element updates, and to sustain programs established from REAP 2.0, that will support local planning for development of affordable housing and infill-supportive infrastructure aligned with growth patterns identified in regional plans.
- 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 tool, which identifies potential housing sites that could advance SCS implementation.
- State and regional agencies could support widespread adoption of the Prohousing Designation Program<sup>97</sup> and further incorporate policies that support housing growth and VMT reduction in tandem. By using the Prohousing Designation Program, State and regional agencies can direct discretionary public funds 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 protect the land from development. The process involves disconnecting the right to develop the property from the property itself. The owner can sell or transfer that right for use on a different parcel of land in the community, as allowed by the program guidelines, 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 urbanized.

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<sup>97</sup> 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/planning-and-community-development/prohousing-designation-program>

- Local agencies could establish mechanisms to focus new development in existing communities that would designate areas that can accept new growth and identify the boundaries of development, typically the surrounding natural or agricultural lands that will not be developed. State and regional agencies could provide incentives, technical capacity, and other support for implementation of these types of local mechanisms aligned with SCSs and coupled with efforts to facilitate infill development and to ensure the provision of adequate affordable housing. Similar programs already exist within California.
- 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.<sup>98</sup>
- State and regional agencies could work together to identify a set of specific projects that have previously supported or challenged SCS implementation as case studies to identify best practices and to create opportunities to consider solutions to previously experienced challenges.
- 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<sup>99</sup> and Green Means Go targets funding to promote infill development within planned center, corridor, or established communities identified in its SCS.<sup>100</sup>

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98 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>.

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

100 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>.

# Accelerate Infill Housing Production

## Challenge

Across the State, housing production is falling far short of demand and of the growth assumed by regional SCSs. Generally, SCSs identify the need to accelerate the production of a broad portfolio of housing options in climate-smart locations in ways that suit their urban, suburban, and rural community contexts. One specific challenge identified is that 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. Many regions identified the need for funding to design and develop necessary housing and infill-supportive infrastructure to unlock the potential of a greater diversity of housing, employment, and other key services in climate-smart locations.

## Potential Actions

- The Legislature could revisit historical sources of funding (e.g., redevelopment), or consider how new funding sources and financing tools could be set up to support infill development and 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.
- State agencies and the Legislature could expand existing funding programs for infill-supportive infrastructure to provide focused funding for SCS implementation, like REAP 2.0 or the Infill Infrastructure Grant Program.
- Local agencies could support the establishment of Enhanced Infrastructure Financing Districts (EIFDs), Community Revitalization and Investment Authorities (CRIAs), or other tax increment financing options to support sustainable infrastructure and development projects.
- 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 public funding and guidance for local agencies to update and streamline their permit processes and/or reduce impact fees for affordable housing projects and projects in identified priority development areas.<sup>101</sup> For example, the City of Los Angeles has established expedited processing services for planning entitlement applications.<sup>102</sup>
- 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 and equity goals. For example, TCAG helped local agencies connect with community partners to support affordable housing projects and active transportation investments.

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101 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.

102 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>

- 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.<sup>103</sup>

## Expand Tools and Resources to Increase and Protect Affordable Housing Challenge

California has not built enough homes to meet the needs of its 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.<sup>104</sup> 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.

### Potential Actions

- The Legislature could empower regions to develop housing finance authorities. For example, AB 1487<sup>105</sup> created the Bay Area Housing Finance Authority, which works to protect current residents from displacement, preserve existing affordable housing, and produce new housing. (See “Latest SCS Strategies” for more information).
- The Legislature could dedicate state resources and funding to support affordable housing construction and preserving existing affordable housing, including near public transit and other high-opportunity locations.
- 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.

<sup>103</sup> City of San Francisco, Planning Department. Stonestown. Retrieved on May 12, 2022, from: Stonestown | SF Planning. <https://sfplanning.org/project/stonestown#about>

<sup>104</sup> 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>

<sup>105</sup> AB 1487 (Chiu, Chapter 541, Statutes of 2015).

- 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.<sup>106</sup>
- State agencies could support programs and policies around different housing ownership models to expand housing access such as through community land trusts, mutual housing, and cooperative ownership models.
- 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 develop recommendations for 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, seal eviction records, 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.

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106 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/planning-and-community-development/housing-open-data-tools/housing-element-implementation-and-apr-dashboard>.

# 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 relative to a car will require additional tools and innovation.

One of these additional tools will be transportation pricing.<sup>107</sup> 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 included in the SCSs, and to ensure any pricing system increases equity above the level of the current, inequitable structure of transportation system management and funding.

Another area of focus is in looking for opportunities to optimize and elevate the ease of using transit, biking, and walking through investments by all levels of government. Investments to improve the user experience – the convenience, comfort and safety, reliability, and to help individuals realize cost-savings with sustainable transportation options that allow them to drive less – are critical to shifting people’s travel choices.

## Authorize Transportation Pricing

### Challenge

State-level authorization of 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 (including gas taxes), 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<sup>108</sup> and initiated a pilot program under SB 339.<sup>109,110</sup> 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 consider the potential choices available for vulnerable and low-income 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 vehicle travel; and authorizing regional and local agencies to implement cordon pricing around downtown centers and other key destinations.

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<sup>107</sup> 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.

<sup>108</sup> SB 1077 (DeSaulnier, Chapter 835, Statutes of 2014).

<sup>109</sup> SB 339 (Wiener, Chapter 308, Statutes of 2021).

<sup>110</sup> For the latest information on these efforts see: <https://catc.ca.gov/committees/road-charge/>.

- 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; the governance and institutional arrangements of existing programs; 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; considerations and flexibility in regional and local implementation; 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 been decreasing since 2014, and a dramatic further 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 helps individuals realize cost-savings with sustainable transportation options that allow them to drive less. At the same time, while it is important to make transit more affordable for passengers, it is also critical to ensure transit operators do not suffer financial losses that would lead to further service cuts.

### 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.<sup>111</sup>
- The Legislature could explore additional funding to support transit projects and operations that optimize the transit experience, improve connections between systems, and offer a convenient alternative to driving. In addition to exploring new funding sources, additional funding and changes to the current Transportation Development Act requirements could be explored to increase funding for transit to ensure that transit agencies can continue to serve their transit-dependent population needs and improve the system.

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<sup>111</sup> 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/>





A Regional Transit light rail train makes a stop at the Archives Plaza station near 11th and O streets in Sacramento.

- State and regional agencies could encourage transit agencies to adopt standardized transit fare structures and payment processes, and mobility 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.<sup>112</sup>
- The Legislature could incentivize regional and local agencies to make transit affordable for all who need to use it and help individuals realize cost-savings and convenience with these options that allow them to drive less, while recognizing the need for resources to ensure transit agencies have the financial means to operate.
- 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.

<sup>112</sup> 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>.

## 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 to implement VMT-reducing projects that increase mode shift in the SCSs. Currently, MPOs are funding projects with various funding sources, which have federal and/or State requirements on how those funds can be utilized. Stakeholders also talked about the difficulty MPOs, self-help counties, and partner agencies have in re-prioritizing transportation projects to align with VMT reduction goals in cases where transportation projects have already been promised to voters via approved transportation sales tax measures. In addition, there is also a need to provide dedicated, flexible, multi-year, capacity-building funding for programmatic and technical assistance efforts around pedestrian and bicyclist 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.<sup>113</sup> 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 current goals and priorities for VMT reduction.<sup>114</sup> 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 and climate 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 ATP and LCTOP, as well as CARB's STEP.

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113 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](#)"

114 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>

- Regional agencies, in partnership with local agencies, could consider prioritizing transportation projects for funding based upon which projects best advance SCS implementation to reduce VMT and advance mode shift, along with other regional goals (e.g., safety, maintenance). To support this action, State agencies could provide regional and local agencies with further guidance on project analysis as it relates to advancing VMT reduction and mode shift, including guidance on project analysis methods based on project types.
- The Legislature could explore ways to incentivize new local tax measure funding toward transportation mode-shift projects. For example, reducing the voter approval threshold for new measures that would exclusively fund investments in transit or active transportation could make it easier to fund these project types. In addition, the Legislature could explore the feasibility of introducing consultation and reporting requirements that enhance transparency and clarity around local tax measure climate and equity impacts and mitigation of impacts prior to a ballot vote.
- The Legislature, State, regional and local agencies could work to authorize different pricing mechanisms and provide guidance on pricing strategy implementation to ensure the viability of transportation funding that can be reinvested in sustainable transportation options. See additional discussion in this report under “Transportation System Management.”
- 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 cycle tracks/pedestrian/transit ways and expediting lengthy approval processes) to expand bikeway, pedestrian, and bus rapid transit networks.<sup>115</sup>

## Improve Access to Funding for High Mode Shift Projects

### Challenge

All communities should be able to benefit from investments, especially those that serve California’s historically underserved populations. Without careful planning and policies, historical inequities can be exacerbated, further harming these communities that have suffered from past practices around building and expanding the transportation system in a way that divided communities of color and primarily served white suburban commuters.<sup>116</sup> These and other circumstances have led to lasting inequalities in access to jobs, services, and transportation choices. Discretionary transportation and climate grant programs could do more to prioritize projects with high mode-shift potential, have a strong linkage to needs expressed by historically underserved populations, and align with adopted SCS transportation and land use strategies, 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<sup>117</sup> 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.

115 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/](https://www.calbike.org/our_initiatives/quick-build-bikeway-networks-for-safer-streets/)

116 See the equity and VMT policy discussion beginning on page 107 of the California Air Resources Board’s 2020 Mobile Source Strategy, available at: [https://ww2.arb.ca.gov/sites/default/files/2021-12/2020\\_Mobile\\_Source\\_Strategy.pdf](https://ww2.arb.ca.gov/sites/default/files/2021-12/2020_Mobile_Source_Strategy.pdf)

117 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>.

## Potential Actions

- The Legislature could increase funding for State programs that are well aligned with climate and equity goals, highly competitive, and regularly oversubscribed, such as Affordable Housing and Sustainable Communities, Transformative Climate Communities, Transit and Intercity Rail Capital, and Low Carbon Transit Operations Programs, as well as ATP and Sustainable Transportation Planning Grant Program, as recommended in the California Transportation Assessment.
- State agencies could partner with local and regional agencies to reevaluate existing State discretionary transportation and climate grant programs and update program guidelines to further prioritize projects with high mode-shift potential and in alignment with adopted SCS transportation and land use strategies. 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, and supporting cost-efficient projects.<sup>118</sup>
- 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 agencies could develop a universal application for multiple State grant programs, particularly for smaller cities and transit operators with constrained staff capacity.
- 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.

## 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. It is vital that individuals can afford to live near jobs and other opportunities and that they are not forced to drive to be able to get access or prevented from access. Community members and NGOs are essential partners in local and regional transportation planning and funding processes, but more work is needed to build and sustain relationships, trust, and integrate their perspectives into planning and funding processes to ensure transportation plans and projects benefit all communities. Agencies should seek to ensure that engagement is followed by transparency and other trust-building efforts. Additionally, it is possible that an agency's past practices have or future actions could cause disparate or other unwanted impacts. For example, investments in road-building projects that cut through communities or cut them off from other parts of town have created harmful impacts. Agencies should therefore be considering equity in their program design and implementation, which involves understanding how communities are and could be impacted and responsive options. It is important to engage communities in a meaningful way to identify community needs and then to prioritize those needs through project completion.

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<sup>118</sup> Cost-efficiency metric comparisons should be done carefully to avoid limitations in travel model sensitivities biasing the results, such as comparing within projects of similar mode.

## Potential Actions

- State and regional agencies could encourage more community representation in appropriate decision-making processes by considering opportunities such as advisory boards and committees and consultant or other technical assistance to support 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 and other stakeholders to develop strategies for addressing this.
- State and regional agencies could fund technical assistance to support communities and other stakeholders 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 flexible funding programs to more easily allow local, regional, and State agencies to foster community-led planning and implement projects identified, developed, and prioritized by local communities, in addition to considering ways to support involvement of community partners and NGOs in planning and decision-making processes at the local, regional, and State levels.
- State and regional agencies could internally or have a third-party entity (local community-based organization or consultant) conduct a racial equity analysis/evaluation of decision-making processes, and develop other procedures and policies for use in developing a plan to address policies, procedures, and practices/processes that perpetuate existing inequities and create barriers or other unintended impacts for BIPOC, low-income, and other historically and currently marginalized and under-resourced communities.
- State, regional, and local agencies and partners could coordinate more to effectively and jointly engage historically underserved communities and avoid duplicative engagement efforts that can create fatigue or burden for community groups.
- State, regional, and local agencies and partners could coordinate more effectively to jointly consider how historical land use practices by all agencies lead to or otherwise relate to inequities experienced today, and jointly discuss options for responding to reduce inequities.
- The Legislature, State, regional, and local agencies could further support the development and implementation of Community Emission Reduction Programs (CERP) and other strategies related to land use and transportation planning in cumulative emissions burdened communities under AB 617<sup>119</sup> that align with land use and transportation strategies that support SCS implementation and help address the pollution burdens in identified communities.
- State agencies could support programs and policies around different housing ownership models to expand housing access, such as through community land trusts, mutual housing, and cooperative ownership models.

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<sup>119</sup> AB 617 (C. Garcia, Chapter 136, Statutes of 2017).

## Mobility, Safety, Health, and Equity

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 improve overall population health, prevent or reduce the risk of developing many chronic conditions, reduce statewide health care costs, and cut GHG emissions and air pollution. To understand these health benefits, CARB and CDPH used the Healthy Mobility Options Tool (HMOT)<sup>120</sup> 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 VMT 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, diabetes, and certain cancers (among the top causes of death for Californians<sup>121</sup>). This would save more lives than are lost to influenza/pneumonia, the 8th leading cause of death in the state, 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 is traffic-related fatalities and serious injuries. In 2017, California had a total of 3,582 fatal and 193,564 injury crashes.<sup>122</sup> This is an average of 1.1 deaths per fatal crash.<sup>123</sup> Collisions are happening in every region and are happening to those who drive, walk, and bicycle. Of particular concern are vulnerable groups such as children and seniors, as well as low-income and minority populations, which have higher rates of traffic collision injury and death. 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.<sup>124,125</sup> 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 bottlenecks. Increasing safety for pedestrians and bicyclists 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 protected bike lanes and paths, transit lanes, and guardrails and bollards; 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. Providing a safe transportation network is essential to meet our economic, housing, environmental, equity, and public health goals.

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120 CDPH and CARB’s HMOT (developed with technical assistance by UC Davis) can be access here: <https://skylab.cdph.ca.gov/HealthyMobilityOptionTool-ITHIM/>.

121 National Center for Health Statistics: Stats of the State of California: <https://www.cdc.gov/nchs/pressroom/states/california/california.htm>.

122 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>

123 Ibid.

124 Ibid.

125 See also US Department of Transportation *Traffic Safety Facts* at <https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/813118>, and Smart Growth America’s *Dangerous By Design 2022* at <https://smartgrowthamerica.org/dangerous-by-design/>.

# Provide Support for Advancing a Safe Transportation System for All Travelers

## Challenge

It is not always clear how to implement goals such as VMT reduction and safety together in transportation planning, projects, and funding. Furthermore, in some cases, additional action is needed to provide local jurisdictions with the tools needed to implement measures that can help both increase safety and reduce emissions.

## Potential Actions

- State and regional agencies could provide additional guidance around how to consider the goals of VMT reduction and improving public safety in transportation project planning and funding, such as how to address common safety challenges without increasing VMT, as well as learn from local jurisdiction experiences with Vision Zero initiatives to help develop more off-the-shelf resources (e.g., templates, guidance, and tools) for local agencies to use in implementation).
- State agencies could work in partnership with regional and local agencies toward authorizing reduced roadway speeds and enabling better speed limit enforcement as this both improves safety and reduces emissions.

Local residents riding their bicycles at a CicLAvia event in Los Angeles, CA.



# 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.<sup>126</sup> 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, safety, sustainability, and equity presents investment and liability risks for early adoption of technologies in the public sector. In addition, adoption of new mobility programs needs 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' CalITP 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).<sup>127</sup>
- State and regional agencies could further support sustainable transportation options 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.
- 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, project-level environmental analyses, and safety and operation standards to protect the public, and to ensure they support climate and equity goals.<sup>128</sup>

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126 New mobility services include shared-use mobility services, such as carshare, ridehailing, and micromobility services; mobile phone-based services for trip planning, booking, and payment; and new travel technologies such as automated vehicles (AVs).

127 Caltrans Cal-ITP program is dedicated to making travel simpler and cost-effective for all by helping to facilitate easy and accessible travel planning and payments for multi-modal trips across California. 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>.

128 See the *Working Draft: Autonomous Vehicles Strategic Framework Draft Vision and Guiding Principles*, Last Updated: January 13, 2021, here: [https://path.berkeley.edu/sites/default/files/011321\\_draft\\_-\\_avsf\\_framework\\_guiding\\_principles\\_2.pdf](https://path.berkeley.edu/sites/default/files/011321_draft_-_avsf_framework_guiding_principles_2.pdf)



## Coordinate Electric Vehicle Investments and Infrastructure

### Challenge

Implementation of the existing SCS strategies for incentivizing electric vehicle (EV) infrastructure or vehicle purchases remains difficult since the strategies require new charging infrastructure, new technology for users to learn, and workforce skill development. These strategies also require ensuring that reductions of GHG's from ZEVs do not unintentionally increase driving and undercut SB 375's original intent to coordinate land use and transportation systems to reduce driving.

### Potential Actions

- Regional and local agencies could jointly plan and fund programs to achieve regional EV collaboration instead of having multiple EV programs in one region, each with their own funding needs. State agencies could help encourage partnerships through its funding programs.
- The Legislature could establish dedicated funding to support the Innovative Clean Transit Regulation,<sup>129</sup> so funds applicable to VMT reduction strategies do not have to be used towards technology upgrades when purchasing vehicles.
- State agencies in partnership with regional and local agencies could develop design standards and model efficient permitting processes for EV charging stations that help advance implementation of SCS strategies to increase EV infrastructure. Regional and local 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.

## California Environmental Quality Act & SB 743: Project-Level VMT

SB 375 includes CEQA provisions, which include streamlined environmental review and analysis of residential or mixed-use projects consistent with the SCS; modified environmental review and analysis through an expedited Sustainable Communities Environmental Assessment (SCEA) or for Transit Priority Projects that are consistent with the SCS; and a complete CEQA exemption for Transit Priority Projects that are consistent with the SCS and meet a specific list of other requirements. CEQA benefits under SB 375 have seen limited use, and new requirements to analyze VMT instead of LOS directed by SB 743 have 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 CEQA streamlining and VMT mitigation tools in ways that support SCS implementation.

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<sup>129</sup> 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>

## Improve CEQA Streamlining Benefits to Support Infill

### Challenge

The use of existing CEQA streamlining benefits under SB 375 have seen limited use as implementation costs tend to outweigh the benefits of streamlining. 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 (such as local land use authority and local regulation, including exclusionary zoning and unnecessary discretionary review processes), further attention to any issues in its implementation can help iron out challenges.<sup>130</sup>

### 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 expand CEQA streamlining opportunities for infill development by creating new exemptions and improving existing exemptions for projects that support GHG emission and VMT reductions. New CEQA streamlining could consider project attributes associated with GHG and VMT reductions included in Appendix D of the Scoping Plan, including project location, density, production and protection of affordable housing units, reduced parking availability, availability of transit and active mobility choices, provision of EV charging infrastructure, building decarbonization, and other relevant factors.<sup>131</sup>
- State and regional agencies could provide more resources, technical assistance, and guidance to locals on SB 375 CEQA provisions. For example, SACOG provides resources and worksheets to help CEQA lead agencies determine if SB 375 CEQA streamlining is applicable, appropriate, and how to approach it.<sup>132</sup>

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130 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>

131 For more detailed examples of residential project attributes see CARB's 2022 Scoping Plan Appendix D Local Actions. Available at: <https://ww2.arb.ca.gov/resources/documents/2022-scoping-plan-documents>.

132 Sacramento Area Council of Governments. SB 375 CEQA Streamlining. [SB 375 CEQA Streamlining - Sacramento Area Council of Governments \(sacog.org\)](https://www.sacog.org) Accessed May 12, 2022.

## Provide Support for SB 743 Implementation

### Challenge

The transition in environmental analysis away from LOS to VMT has been resource-intensive for local agencies to navigate and implement individually. VMT mitigation strategies are project-dependent and so are often designed without alignment to the region's SCS. This results in a disconnect between local development and the regional plan for development and inhibits successful VMT reduction.

### 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 a VMT mitigation bank, or 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.



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# Conclusion

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SB 375 has been an important tool to coordinate regional land use and transportation planning and plan for how each region will support California to meet its climate commitments. The findings of this second report on SB 375 progress re-affirms that well-designed SCS plans must be implemented with appropriate State, regional, and local coordination, funding, and consistent action. 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. A planning requirement, however, is an incomplete tool to build more sustainable and equitable communities. No matter how robust, regional plans alone cannot reduce emissions; they are necessary but insufficient instruments to get the job done.

Fulfilling SB 375 requires a stronger focus on implementation. Every actor in the land use, transportation, and housing fields has a role in implementation. Agencies must authorize and fund strategies in the most recently adopted SCSs and use SCS planning assumptions to shape future growth. These, among other actions, 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. Although we are seeing some progress, the current toolbox is insufficient to fully implement the strategies needed to get to our goals.

CARB heard from many stakeholders that a helpful next step would be for the State and Legislature to identify and resource a stronger implementation framework for SB 375 that brings together regional and local government agencies, community groups, and the private sector to prioritize the proposed actions in this report, identify associated accountability measures for the prioritized actions, and advance and monitor the policy work to implement them. By authorizing and creating the tools we need, we can expand progress to build communities that will sustain Californian's long into the future.



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