



SOUTHERN CALIFORNIA
ASSOCIATION OF GOVERNMENTS
900 Wilshire Blvd., Ste. 1700
Los Angeles, CA 90017
T: (213) 236-1800
www.scag.ca.gov

REGIONAL COUNCIL OFFICERS

President
**Jan C. Harnik, Riverside County
Transportation Commission**

First Vice President
Art Brown, Buena Park

Second Vice President
**Curt Hagman, County of
San Bernardino**

Immediate Past President
Clint Lorimore, Eastvale

COMMITTEE CHAIRS

Executive/Administration
**Jan C. Harnik, Riverside County
Transportation Commission**

Community, Economic &
Human Development
Frank Yokoyama, Cerritos

Energy & Environment
Deborah Robertson, Rialto

Transportation
Ray Marquez, Chino Hills

MEETING OF THE

TECHNICAL
WORKING GROUP

*Thursday, January 19, 2023
10:00 a.m. – 12:00 p.m.*

SCAG OFFICES
900 Wilshire Blvd., Ste. 1700
Los Angeles, CA 90017
(213) 236-1800

JOIN ZOOM MEETING

[HTTPS://SCAG.ZOOM.US/J/142774637](https://scag.zoom.us/j/142774637)

OR

DIAL BY YOUR LOCATION

+1 669 900 6833 US TOLL

+1 346 248 7799 US TOLL

MEETING ID: 142 774 637

If members of the public wish to review the attachments or have any questions on any of the agenda items, please contact Kevin Kane at (213) 236-1828 or via email at kane@scag.ca.gov. Agendas & Minutes for the Technical Working Group are also available at: <https://scag.ca.gov/technical-working-group>

SCAG, in accordance with the Americans with Disabilities Act (ADA), will accommodate persons who require a modification of accommodation in order to participate in this meeting. SCAG is also committed to helping people with limited proficiency in the English language access the agency's essential public information and services. You can request such assistance by calling (213) 630-1402. We request at least 72 hours (three days) notice to provide reasonable accommodations and will make every effort to arrange for assistance as soon as possible.

- 1. White Paper: Considerations for Regional and Subregional Forecasting in California**
Beth Jarosz, Population Reference Bureau
10 Minutes, [Packet Page 5](#)

- 2. Connect SoCal 2024 Forecasted Regional Development Pattern – Process Update**
Kevin Kane
30 Minutes, [Packet Page 26](#)

- 3. Highlights of the CTC project list input**
Mike Jones and Agustin Barajas
20 Minutes
SCAG works with partner implementing agencies to identify regional transportation projects that preserve and optimize the regional transportation system through the Connect SoCal Project List. In addition to the financially constrained list (projects for which funds are identified in the plan), the Project List also contains an unconstrained list of projects, also known as strategic projects, for illustrative purpose. Strategic projects are those projects that the region believes merits future consideration for inclusion in the financially constrained plan as the funding becomes available and the consensus for the projects are further developed through future studies. Staff will update the TWG on the Project List development process, status, and next steps.

- 4. AB 2334—Requirements and Opportunities for Regional Collaboration**
Tom Vo and Frank Wen
15 Minutes, [Packet Page 34](#)
Effective January 1, 2023, Assembly Bill (AB) 2334 went into effect on January 1 and built upon the State’s Density Bonus Framework. It defines certain development capacity enhancements with the goal of increasing housing development generally and affordable housing development specifically. The law aims to increase the number of project sites eligible for density bonuses to include all qualifying sites within very low vehicle-mile-traveled (VMT) areas that otherwise might lack the level of public transportation services required under the adopted Density Bonus Law of AB 1763, which applies only to Major Transit Stops. SCAG staff will present the background and existing tools and seek feedback on ways to assist local jurisdictions in implementing AB 2334.

- 5. Connect SoCal 2024 Program Environmental Impact Report – Status Update**
Karen Calderon
15 minutes
Staff will provide a brief status update on the Program Environmental Impact Report (PEIR)’s [Notice of Preparation](#) (State Clearinghouse No.: 2022100337).

- 6. Update on RAMP Advisory Task Group and next steps for SoCal Greenprint**
India Brookover
The [Draft RAMP Policy Framework](#) was unanimously approved by the RAMP-Advisory Task Group on November 16th. The EEC approved the Policy Framework at the January meeting, with minor changes, including adding a representative from the environmental community and clarifying that elected officials may serve as public agency representatives on Greenprint Tool Technical Advisory Committee (TAC). Next, SCAG staff be taking the Policy Framework to RC in February for approval. If approved, SCAG will engage with subregions to solicit participants for the Greenprint TAC in February/March. For more information, please contact India Brookover at Brookover@scag.ca.gov.

NOVEMBER 17, 2022: MEMBERSHIP ATTENDANCE

LAND USE AUTHORITIES

<i>Equina, Justin</i>	<i>Associate Planner</i>	<i>City of Irvine</i>
<i>Gable, Emily</i>	<i>City Planner</i>	<i>City of Los Angeles</i>
<i>Gackstetter, Ryan</i>	<i>Senior Planner</i>	<i>City of Chino Hills</i>
<i>Guiam, Charles</i>	<i>Planner</i>	<i>City of Anaheim</i>
<i>Kim, Jasmin</i>		<i>City of Oxnard</i>
<i>Poynter, Marika</i>	<i>Principal Planner</i>	<i>City of Irvine</i>
<i>Randle, Yuritz</i>	<i>Associate Planner</i>	<i>County of Orange</i>
<i>Shimoto-Lohr, Gail</i>	<i>Regional Planning Consultant</i>	<i>City of Mission Viejo</i>
<i>Siques, Joaquin</i>	<i>Deputy Director of Transportation</i>	<i>City of Pasadena</i>
<i>Vander Hyde, Candice</i>	<i>Analyst</i>	<i>City of Lancaster</i>
<i>Wikstrom, Alexander</i>	<i>Transportation Planning Associate II</i>	<i>City of Los Angeles (LADOT)</i>
<i>Wong, Jimmy</i>	<i>Associate Planner</i>	<i>City of Santa Fe Springs</i>

REGIONAL PARTNERS

<i>Adamson, Heather</i>	<i>Director of Planning</i>	<i>AMBAG</i>
<i>Huddleston, Lori</i>	<i>Transportation Planning Manager</i>	<i>LA Metro</i>
<i>Lee, Josh</i>	<i>Chief of Planning</i>	<i>SBCTA/SBCOG</i>
<i>Masters, Martha</i>	<i>Senior Management Analyst</i>	<i>RCTC</i>
<i>Qin, Aileen</i>	<i>Associate Planner</i>	<i>Gateway Cities COG</i>

REGULATORY & COORDINATING AGENCIES

<i>Shelley, Scott</i>	<i>Senior Environmental Planner</i>	<i>Caltrans – D12</i>
-----------------------	-------------------------------------	-----------------------

FIELD EXPERTS

<i>Diep, Deborah</i>	<i>Director</i>	<i>CDR/CSUF</i>
----------------------	-----------------	-----------------

ALTERNATES, SELF-IDENTIFIED NON-MEMBERS & PUBLIC ATTENDEES

<i>Aranguri, Cesar</i>	<i>Director & Board Chairman</i>	<i>Indigenous Ark Urban Technologies</i>
<i>Chen, Victor</i>		
<i>Freeman, Rachel</i>		<i>BizFed LA/Tejon Ranch</i>
<i>Hofflinger, Michael</i>	<i>Senior Planner</i>	<i>City of Chino Hills</i>
<i>Kain, Robert</i>	<i>Principal</i>	<i>Houseal Lavigne</i>
<i>Lauffer, Amanda</i>	<i>Associate Planner</i>	<i>City of Anaheim</i>
<i>Lugaro, Julie</i>	<i>Associate Environmental Planner</i>	<i>Caltrans – D12</i>
<i>Zaman, Ruby</i>	<i>Assistant Director</i>	<i>CDR/CSUF</i>

SCAG TECHNICAL WORKING GROUP MEETING SUMMARY

November 17, 2022

10:00 a.m. – 12:00 p.m.

1. DRAFT TECHNICAL METHODOLOGY FOR CONNECT SOCAL 2024

Camille Guiriba presented an update on the progress of the Draft Technical Methodology for Connect SoCal 2024, which included an overview of changes to the GHG reduction strategies from Connect SoCal 2020 as well as next steps. Gail Shiimoto-Lohr (City of Mission Viejo) and Deborah Diep (CDR/CSUF) provided comments and questions for discussion.

2. LOCAL DATA EXCHANGE (LDX) UPDATE AND NEXT STEPS DISCUSSION

Kevin Kane presented an update on the LDX, including an overview on evaluating the input as well as updates to the Connect SoCal 2024 Growth Forecast Methodology. Ryan Gackstetter (City of Chino Hills), Yuritz Randle (County of Orange), Jasmin Kim (City of Oxnard), Cesar Aranguri (Indigenous Ark Urban Technologies), Deborah Diep, Josh Lee (SBCTA/SBCOG), Charles Guiam (City of Anaheim), and Gail Shiimoto-Lohr provided questions and comments for discussion.

3. REAP 2.0 PROGRAMS TO ACCELERATE TRANSFORMATIVE HOUSING (PATH) PROGRAM

Jacob Noonan provided an update on the REAP 2.0 PATH program, which included an overview of the REAP 2.0 Framework, the funding areas, evaluation criteria as well as major milestones and next steps. Josh Lee and Jasmin Kim provided questions for discussion.

4. REGIONAL RESILIENCE FRAMEWORK UPDATE

Lorianne Esturas presented an update on the Regional Resilience Framework, specifically an overview of the timeline, key deliverables, and highlights from the CBO and Tribal Outreach focus groups conducted. Josh Lee and Gail Shiimoto-Lohr provided questions for discussion.

5. SCAG REGIONAL ADVANCE MITIGATION PROGRAM – ADVISORY TASK GROUP (RAMP-ATG) UPDATE

India Brookover presented on the RAMP-ATG and Policy Framework, including an update on policy framework revisions and the establishment of a Technical Advisory Committee. Gail Shiimoto-Lohr provided a comment.

6. CONNECT SOCAL 2024 POLICY SUBCOMMITTEE UPDATE

Leslie Cayton presented a brief update on the Connect SoCal 2024 Policy Subcommittees and upcoming timeline.

Considerations for Regional and Subregional Forecasting in California

A Report for the Southern California Association of Governments (SCAG)

Produced by Population Reference Bureau (PRB)



January 2023

Purpose

The purpose of this report is to identify best practices for aligning regional and subregional forecasting for regional transportation planning organizations in California. This report will review best practices for forecasting methods and data as well as consider the statutory and regulatory frameworks in which regional transportation planning organization operate.

Background

Although regional transportation planning organizations go by a variety of names, including metropolitan planning organizations (MPOs) and councils of government (COGs), they each serve as the primary transportation planning agency for metropolitan areas throughout the United States. Regional transportation planning organizations are the channel through which federal transportation funds are allocated, and for more than five decades, they have been responsible for continuing, comprehensive, and cooperative transportation planning. This planning includes maintaining a long-range transportation plan, known as a Metropolitan Transportation Plan or Regional Transportation Plan, and maintaining short-range Transportation Improvement Programs. Through these long- and short-range plans, regional transportation planning organizations are responsible for transportation planning to improve a region's air quality, increase mobility for residents, and improve transportation safety within a region.

In addition to transportation planning, regional transportation planning organizations may also serve a variety of other functions. Since passage of SB 375 in 2008, in California these functions have included developing a sustainable communities strategy (SCS) to meet state-mandated greenhouse gas reduction targets. When the Bipartisan Infrastructure Bill of 2021 was enacted, carbon reduction planning also became a federal requirement. In California, MPOs/COGs also play a crucial role in the Regional Housing Needs Allocation (RHNA) process.

In order to support their various mandated short- and long- range planning activities, MPOs/COGs develop forecasts of expected future conditions. These regional growth forecasts often include population, housing and/or households, employment, land use, and transportation conditions for the metropolitan region as a whole and for subregional areas such as incorporated jurisdictions, transportation analysis zones, or other subcounty geographies. The finest-scaled subregional forecasts may attempt to predict future conditions at a parcel, or tax lot, level.

Forecast Terminology:

The word *forecast* is typically used to imply a likely or expected future outcome. The word *projection* implies an expected or desired outcome given a set of assumptions or under a given scenario. However, in the regional planning context scenario exercises (projections) are often referred to as forecasts or forecast scenarios. For that reason, throughout this report the terms will be used interchangeably.

Both regional and subregional forecasts are described in more detail below.

Purpose of Regional Growth Forecasts

Regional growth forecasts are used within MPOs/COGs for a wide variety of purposes, but their primary purpose is to serve as a common starting point for developing subregional population, employment, and land use patterns that inform regional transportation models. Those transportation models are then, in turn, used to develop transportation plans.

Long-range transportation plans must have a horizon at least 20 years into the future—and often extend 25 years or more—and are currently updated every four years.¹ Thus, regional forecasts are generally updated every four years.

Regional Growth Forecasts and California Housing Policy

In California, the population component of the regional growth forecast is also relevant to the regional housing need determination step in the Regional Housing Needs Allocation (RHNA) process.

California state housing law ([California Government Code, Chapter Title 7, Division 1, Chapter 3, Article 10.6. 65584.01](#)) states:

If the total regional population forecast for the projection year, developed by the council of governments and used for the preparation of the regional transportation plan, is within a range of 1.5 percent of the total regional population forecast for the projection year by the Department of Finance, then the population forecast developed by the council of governments shall be the basis from which the department determines the

¹ Under federal law, some metropolitan planning organizations are on a five-year cycle for plan updates, rather than four. See U.S. Code, Title 49 <https://www.govinfo.gov/content/pkg/USCODE-2020-title49/pdf/USCODE-2020-title49-subtitleIII-chap53-sec5303.pdf>.

existing and projected need for housing in the region. If the difference between the total population projected by the council of governments and the total population projected for the region by the Department of Finance is greater than 1.5 percent, then the department and the council of governments shall meet to discuss variances in methodology used for population projections and seek agreement on a population projection for the region to be used as a basis for determining the existing and projected housing need for the region. If agreement is not reached, then the population projection for the region shall be the population projection for the region prepared by the Department of Finance as may be modified by the department as a result of discussions with the council of governments.

Although there is no rule *requiring* COG population projections to be within 1.5% of the Department of Finance (DOF) forecast, many COGs aim for this target. Most immediately, being within the statutory target range of DOF's forecast may streamline the RHNA consultation between the COG and the California Department of Housing and Community Development (HCD).² In addition, having a forecast that is similar to an independent forecast, such as DOF's, can help build the case for forecast plausibility.

Uncertainty in Regional Growth Forecasts

With any forecast, there is a degree of uncertainty, and transportation models are no exception. Regulators and thought leaders in the sector have described the uncertainty inherent in producing long range growth forecasts. For example, a 2004 report by the Federal Highway Administration notes: "Predictions for socioeconomic factors, such as population, ethnicity, employment, income, and household sizes, are generally feasible, albeit imperfect, provided the geographical area is adequately large. Predictions for trends based on technological innovation, social change, or legislative factors, however, are much more difficult."³

The same Federal Highway Administration report also acknowledges that predictions tend to be more accurate for trends that are less susceptible to sudden change, such as total housing stock, and for larger geographic areas compared with smaller ones. Similarly, in a 2007 report the Transportation Research Board notes that forecast accuracy is likely to be higher in regions that are growing slowly or are stable, compared with more rapidly changing regions.⁴

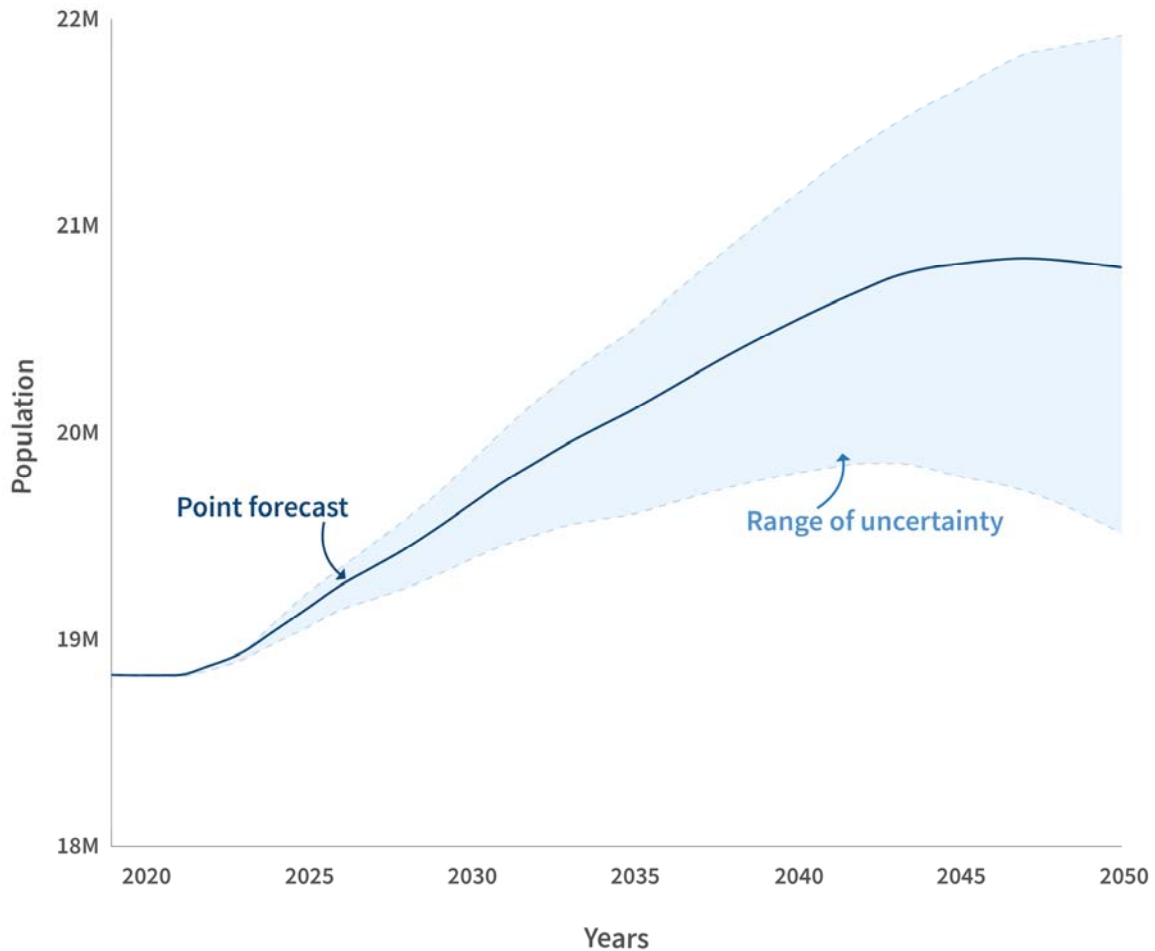
² In practice this streamlining has not always been the case. There are instances, such as SCAG's 6th Cycle RHNA, where HCD rejected use of the COG forecast, citing differences in age structure, despite the SCAG forecast meeting the statutory requirement.

³ John S. Miller. (2004.) The Uncertainty of Forecasts. U.S. Department of Transportation, Federal Highway Administration. <https://highways.dot.gov/public-roads/septemberoctober-2004/uncertainty-forecasts>

⁴ Transportation Research Board. (2007.) Metropolitan Travel Forecasting: Current Practice and Future Direction. <https://onlinepubs.trb.org/onlinepubs/sr/sr288.pdf>

While transportation models are generally based on a point forecast, it can be instructive for planners and policymakers to see a range of regional growth forecast possibilities that reflect inherent forecast uncertainty. (See Figure 1.) Showing low, middle, and high forecast ranges may be particularly useful in California as the state’s growth trajectory has changed. After decades of slow but steady growth, California recently entered a period of population decline, driven largely by a dramatic drop-off in international migration from 2017-2021 that was largely driven by federal policies and the COVID-19 pandemic.⁵

Figure 1: Regional Forecast Uncertainty Grows Over Time



Recent changes to population growth trajectories in California—which include both slowing growth and aging population—suggest that future plans may need to grapple with stable or shrinking population concurrent with continued increase in demand for housing and the

⁵ PRB analysis of data from the California Department of Finance and U.S. Census Bureau.

associated changes in transportation demand that such reversals from prior trends may entail.⁶ Expressing forecast uncertainty now can facilitate planning discussions in the future and can help the region’s decisionmakers plan for a variety of potential future outcomes.

Purpose of Subregional Growth Forecasts

As with regional forecasts, subregional forecasts are used for a wide variety of purposes, but their primary purpose is to translate regional growth expectations into the spatially disaggregated population, employment, housing, and land use patterns that inform the regional transportation models that underpin transportation plans. Subregional models typically use the regional forecast as a control total and then disaggregate the forecast based on space available (sometimes referred to as capacity or planned capacity) and expected development.

As noted above, long-range transportation plans must have a horizon at least 20 years and are updated every four years. Thus, subregional forecasts are also updated every four years. Both regional and subregional forecasts are also generally incorporated into environmental review of the transportation plan.⁷

Subregional Growth Forecasts and California Planning Policy

[California Government Code Section 65080\(b\)\(2\)\(B\)](#) declares that each metropolitan planning organization must prepare a sustainable communities strategy (SCS) that meets the following criteria:

Each metropolitan planning organization shall prepare a sustainable communities strategy, subject to the requirements of Part 450 of Title 23 of, and Part 93 of Title 40 of, the Code of Federal Regulations, including the requirement to use the most recent planning assumptions considering local general plans and other factors. The sustainable communities strategy shall (i) identify the general location of uses, residential densities, and building intensities within the region, (ii) identify areas within the region sufficient to house all the population of the region, including all economic segments of the population, over the course of the planning period of the regional transportation plan taking into account net migration into the region, population growth, household formation and employment growth, (iii) identify areas within the region sufficient to house an eight-year projection of the regional housing need for the region pursuant to

⁶ This seeming paradox of population and housing growth trends moving in opposite directions is anticipated because population aging. Household formation rates rise with age, and there is a higher likelihood of living alone at older ages. Thus, as the region’s population ages, more housing will likely be needed, even if the total population remains stable or shrinks slightly.

⁷ U.S. Code Title 23, Chapter 1, §168

<https://uscode.house.gov/view.xhtml?req=%22population+and+employment%22&f=treesort&fq=true&num=1&hl=true&edition=prelim&granuleId=USC-prelim-title23-section168>

Section 65584, (iv) identify a transportation network to service the transportation needs of the region, (v) gather and consider the best practically available scientific information regarding resource areas and farmland in the region as defined in subdivisions (a) and (b) of Section 65080.01, (vi) consider the state housing goals specified in Sections 65580 and 65581, (vii) set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the state board, and (viii) allow the regional transportation plan to comply with Section 176 of the federal Clean Air Act (42 U.S.C. Sec. 7506).;

In short, California Government code implies that there should be alignment between the SCS and RHNA housing allocations. However, even though the SCS must meet these criteria, including identifying sites for future population, housing, and employment growth, the SCS does not supersede local land use authority. While it is possible that local land use authorities may amend general plans and zoning to align with the SCS, there are few mechanisms to ensure that those alignments occur.

Complicating matters, the amount of housing that must be planned for through RHNA has increased dramatically. In 2018, [SB 828](#) changed the formula used to determine “an eight-year projection of the regional housing need for the region pursuant to Section 65584.” These statutory changes to the methodology resulted in substantially higher housing need determinations than under prior law.⁸ As a result, the gap between local land use plans and the SCS appears to be growing.

The growing gap between local land use plans and the SCS may make the SCS increasingly unsuitable for other purposes, which are described in more detail below. The gap may also increase uncertainty in the subregional forecast.

Uncertainty in Subregional Growth Forecasts

As noted above, there is considerable uncertainty in forecasting. That uncertainty is magnified for smaller geographic areas, smaller populations, and trends that experience volatility. In a 2007 report the Transportation Research Board (TRB) notes:

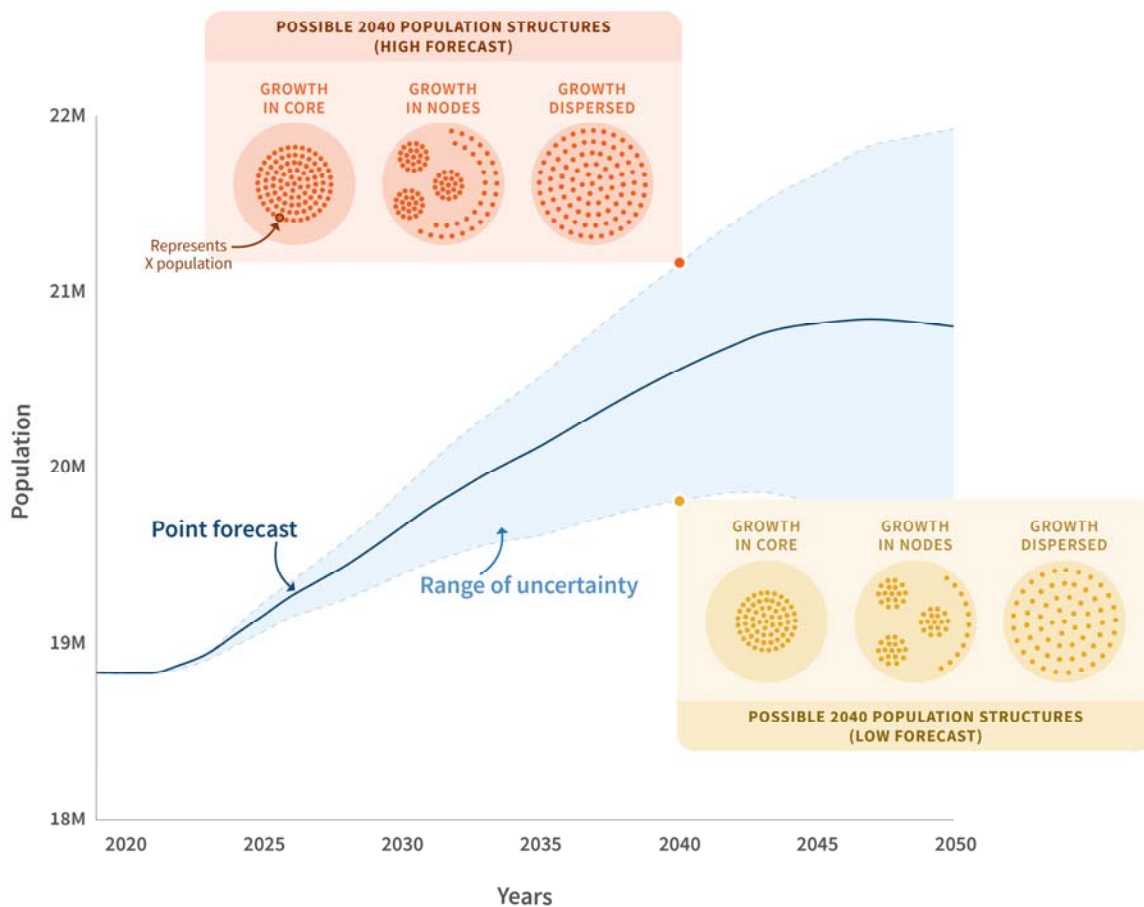
In metropolitan regions that are growing slowly or are stable, regional errors in demographic forecasts are likely to be small; in more rapidly changing regions, greater errors in demographic forecasts would be expected. There may be considerably more uncertainty in allocating regional demographic forecasts to subareas. If an area is

⁸ Association of Bay Area Governments. Housing Element Law Changes from 1969 to the Present. https://abag.ca.gov/sites/default/files/rhna_background.pdf

*undergoing steady or even dramatic growth, one can predict future regional population and employment with some confidence; where those people and jobs are going to go within the region is far more uncertain.*⁹

Specifically, subregional forecasts have all of the uncertainties inherent in regional forecasts as demographic and economic trends shift over time. They also have the additional uncertainty that comes with adding a new dimension of forecasting—space. (See Figure 2.) With subregional forecasts, development patterns may shift over time toward more compact or fringe development, and may be affected by forces such as transit preferences, urban flight, or gentrification. In other words, subregional forecasting has a higher degree of uncertainty than regional forecasting.

Figure 2: Subregional Forecasts Include Uncertainties Over Both Time and Space



⁹ Transportation Research Board. (2007.) Metropolitan Travel Forecasting: Current Practice and Future Direction. <https://onlinepubs.trb.org/onlinepubs/sr/sr288.pdf>

As with regional forecasting, *short*-range subregional forecasting may be less uncertain than *long*-range subregional forecasting. In the near term there may be little reason to expect population, housing, or employment to change from their current levels and locations. Given the timeline for the permitting process, major changes such as a new development are likely already known by local planning staff and can be factored into the short-range forecast with a high degree of confidence (if not complete certainty).

Subregional forecasts are likely to be more accurate in the short term because pipeline projects and entitlements are known with some certainty and drive most of the change expected in the first five-10 years of a forecast. However, there is considerably more uncertainty in long-range subregional forecasts, as demographic shifts, market forces, environmental considerations, and other factors get increasingly difficult to predict the farther one is from the base year of the forecast.

As a result of this uncertainty, in their report TRB suggests that “A better use of travel models might be for analysis of outcomes of a range of transportation alternatives, considering different scenarios of future urban development.”¹⁰

In practice, many COGs do consider one or more subregional forecasts—often under the heading of alternative land use patterns—as part of their plan environmental impact reports (PEIRs). Analysis of land use alternatives could begin to address the uncertainty inherent in subregional forecasting. However, in practice, PEIR subregional alternative forecasts are often extremes—such as focusing all future growth in transit hubs—that are better suited for analyzing transportation network sensitivity than reflecting a true range of anticipated future outcomes.

In addition, as noted above, because the SCS does not have to conform to existing general plans and zoning—nor do general plans and zoning need to change to reflect the SCS—the SCS introduces an additional level of uncertainty in subregional forecasts. On one hand, requirements to reduce greenhouse gas emissions may result in SCS land use assumptions that, for example, concentrate future housing in infill developments near transit. While this approach is commendable for resource conservation, infill projects have historically faced lengthy and difficult approvals processes, making their outcome far from certain even if the local land use authority puts the necessary zoning rules into place. On the other hand, projects in the SCS are linked to California Environmental Quality Act (CEQA) streamlining opportunities. Thus, for example, a dense, transit-adjacent development being included in the SCS may increase the likelihood of development or redevelopment and thereby reduce subregional forecast uncertainty. The interplay between these forces requires further study.

¹⁰ Transportation Research Board. (2007.) Metropolitan Travel Forecasting: Current Practice and Future Direction. <https://onlinepubs.trb.org/onlinepubs/sr/sr288.pdf>

Other Planning Purposes of Subregional Growth Forecasts

In addition to their role in mandated transportation and housing planning, subregional forecasts are used by other local governments for planning purposes; they are frequently used by water, wastewater, and other infrastructure planning agencies, as well as public health agencies and school districts. Subregional forecasts may also help inform general plan or zoning updates. And businesses, nonprofits, educational institutions, health care providers, emergency response agencies, and other groups may use subregional forecasts for their planning.

For these auxiliary uses, the scenarios of future urban development that are most helpful are those that are most reasonably anticipated to occur. To the extent that the SCS anticipates—or even spurs—changes in future development patterns, an SCS-based subregional forecast could be useful for wastewater or school planning. However, as noted above, the levels, locations, and intensities of development required in the SCS to meet RHNA and greenhouse gas reduction targets may be dramatically different from historical growth patterns.

The SCS may represent one possible future development scenario, but other users may not find it to be the most likely projection (and therefore the most appropriate) for their uses. For example, a county transportation commission that is planning for infrastructure demand may find that SCS growth patterns are unexpected or are less consistent with their planning needs and applications. As one example, local government agencies in San Diego County have expressed concern about using the San Diego Association of Government’s 2021 SCS—rather than the general plan-based subregional forecast they were accustomed to—for planning other infrastructure (such as water and wastewater). To meet multiple user needs, the agency ultimately published two forecasts—the SCS-based forecast and a more traditional one—as part of their most recent transportation plan.

As the examples above illustrate, part of the challenge with using the SCS for other planning purposes may be in helping data users understand the shift from a general plan-based forecast to a policy-based one, as well as the uncertainties inherent in any subregional forecast. Explaining uncertainties in both types of subregional forecasts (general plan-based and SCS/policy-based) may help alleviate concerns and/or help agencies select the right type of subregional forecast for their intended use.

Policy Considerations and Shifting Legislative Requirements

Federal law imposes many requirements on regional transportation planning, and thus on the regional and subregional growth forecasts that underpin that planning. This includes guidance on alignment between the transportation plan, housing need, and economic development. U.S. Code Title 23, Chapter 1, § 134 states:

In general.-The Secretary shall encourage each metropolitan planning organization to consult with officials responsible for other types of planning activities that are affected by transportation in the area (including State and local planned growth, economic

development, housing, tourism, natural disaster risk reduction, environmental protection, airport operations, and freight movements) or to coordinate its planning process, to the maximum extent practicable, with such planning activities.

(C) Housing coordination plan.-

(i) In general.-A metropolitan planning organization serving a transportation management area may develop a housing coordination plan that includes projects and strategies that may be considered in the metropolitan transportation plan of the metropolitan planning organization.

(ii) Contents.-A plan described in clause (i) may-

(I) develop regional goals for the integration of housing, transportation, and economic development strategies to-

(aa) better connect housing and employment while mitigating commuting times;

(bb) align transportation improvements with housing needs, such as housing supply shortages, and proposed housing development;

(cc) align planning for housing and transportation to address needs in relationship to household incomes within the metropolitan planning area;

(dd) expand housing and economic development within the catchment areas of existing transportation facilities and public transportation services when appropriate, including higher-density development, as locally determined;

(ee) manage effects of growth of vehicle miles traveled experienced in the metropolitan planning area related to housing development and economic development;

(ff) increase share of households with sufficient and affordable access to the transportation networks of the metropolitan planning area;

(II) identify the location of existing and planned housing and employment, and transportation options that connect housing and employment; and

(III) include a comparison of transportation plans to land use management plans, including zoning plans, that may affect road use, public transportation ridership, and housing development.

Within California, legislative changes that began in 2008 now require that housing planning (RHNA) and transportation planning (RTP/SCS) be coordinated. Housing, land use, and transportation planning should be integrated to help meet the state's housing goals and to help reduce greenhouse gas emissions.

In addition, state legislative changes beginning in 2017 changed the relationship between long-range forecasts and the housing planning target envisioned in the 6th cycle RHNA.¹¹ Most notably, HCD's RHNA determination now includes explicit measures of *existing* housing needs—

¹¹ Housing Element and RHNA Law: Recent Reforms

<https://shou.senate.ca.gov/sites/shou.senate.ca.gov/files/RHNA%20reform%20fact%20sheet%20-%2010.2021.pdf>

Housing Element Law: Changes from 1969 to the Present

https://abag.ca.gov/sites/default/files/rhna_background.pdf

specifically new policies on vacancy rate adjustments as well as new factors for overcrowding and cost burden rates. Due to these changes, the RHNA determination is no longer an expectation of future housing need—which was at least loosely aligned with expected future housing growth—but a reflection of both *existing and future need*.

To put the shift into perspective, some regions saw 6th cycle determinations double (for example, Association of Bay Area Governments, Council of San Benito County Governments, Santa Barbara County Association of Governments) or triple (for example, SCAG, Association of Monterey Bay Area Governments) what they were in the 5th cycle.

It is clear that these dramatic shifts in RHNA determinations are driven by the change in law to incorporate existing housing need, as regions that received their 6th cycle determination before the law change (including the San Diego Association of Governments) saw almost no change in their determination between the 5th and 6th cycles. Measures of existing need now comprise the majority of HCD's determination of the SCAG region's total housing need of 1,341,827 units for the 6th cycle (2021-2029).

In the 5th cycle, RHNA determinations for the eight-year planning horizon typically accounted for less than 40% of each region's predicted household growth over their 20-30-year long-range transportation plan horizon. For example, SCAG's 5th cycle RHNA determination was a range 409,060-438,030. At the same time, the SCAG regional growth forecast was a net increase of 1,472,000 households over the 25-year planning horizon (from 5,853,000 households in 2010 to a predicted 7,325,000 households by 2035). The upper end of SCAG's RHNA determination range (438,030) reflects about 30% of the household growth predicted over the long-range horizon.

In contrast, RHNA determinations for the 6th cycle eight-year planning horizon are closer to the number of households projected for the entire 20-30 year transportation plan horizon. For example, SCAG's 6th cycle RHNA determination for the eight-year horizon was 1,341,827. Compared with the contemporaneous forecast, which showed a change of 1,621,000 households (from 6,012,000 in 2016 to 7,633,000 in 2045), the 6th cycle RHNA reflects more than 80% of the household growth predicted over the long-range horizon. In at least one region, the 6th cycle targets for the eight-year RHNA planning horizon exceed projected household growth in the long-range (20-30 year) planning horizon.¹²

To understand why the change in housing policy is significant for regional and subregional growth forecasting, one additional feature of RHNA is important. The RHNA process requires local jurisdictions to identify sites and zoning, pursuant to additional parameters, that can

¹² Analysis by PRB of publicly-available data for 5th and 6th cycle RHNA from California Department of Housing and Community Development. <https://www.hcd.ca.gov/planning-and-community-development/regional-housing-needs-allocation>

accommodate the determined number of units region-wide. The policy goal of these changes to RHNA is that mandatory rezoning will lead to increased housing supply. However, the RHNA process does not require that housing be constructed at those sites (or anywhere within a jurisdiction).

In contrast to a housing planning goal, regional and subregional growth forecasts are an expert-derived assessment of reasonably foreseeable future growth over a set forecast horizon. The expert assessment is informed by historical trends (including in other, similar regions), available space and constraints to development, and reasonably anticipated policy or trend changes. “Reasonably foreseeable” growth includes assessing the possible impact of policies, including RHNA-related zoning changes, but also must consider other factors like market forces that will affect future growth.

Aligning the SCS and RHNA in the SCAG Region

When the RHNA determination was more closely aligned with future need (that is, in past RTP/SCS cycles), SCAG produced an integrated forecast where jurisdiction-level household growth totals matched the RHNA housing unit allocations for those jurisdictions.

SCAG’s preliminary regional projections were released in February 2022, and the region is expected to grow by 1.7 million people, 1.5 million households, and 1.3 million jobs. In all three measures, expected regional growth is lower than in [Connect SoCal 2020](#) (the forecast associated with 6th cycle RHNA) due to several factors (such as changes in fertility, mortality, and migration; the release of 2020 Census data; and COVID-19). However, household growth over the Connect SoCal horizon is still expected to exceed the 6th cycle RHNA housing unit need region wide.

Developing Connect SoCal 2024 requires SCAG to allocate this preliminary regional forecast to the jurisdictional and neighborhood levels using a variety of data and techniques. Local jurisdictions then review the data before it is integrated into the regional plan.¹³ The 6th cycle of RHNA has the potential to substantially increase the number of sites available for housing, especially in jurisdictions with RHNA allocations that exceed prior RTP/SCS forecasts. As such, SCAG’s preliminary growth forecast at the jurisdiction and neighborhood levels, released May 23, 2022, sought to reflect capacity changes from the 6th cycle of RHNA, as RHNA is an adopted policy with a large potential impact on household growth by 2050.

However, since many jurisdictions’ housing elements are incomplete and the rezonings associated with them may not be due until October 2024, data on newly available sites are inherently incomplete. Furthermore, the SCAG region’s lower population and household

¹³ See www.scag.ca.gov/local-data-exchange.

growth outlook compared to the 2020 plan make it extremely unlikely that all jurisdictions' household forecasts will exceed the RHNA target from a demand-side perspective.

In addition, RHNA planning is just one factor that must be considered in future anticipated subregional growth. Environmental concerns such as reducing greenfield development and climate concerns such as sea level rise, drought, and wildfire, may affect future development patterns in ways that are not yet fully understood. More immediately, recent experiences around water supply in Monterey County—where a cease-and-desist order from the state resulted in the inability to build new housing, even in areas with planned capacity and high demand for housing—may portend additional uncertainties for housing development in other parts of California.¹⁴

In summary, it is not expected or required that every SCAG jurisdiction's household forecast exceed their 6th cycle RHNA allocation, as the RHNA number may not be the most likely outcome when all opportunities and constraints are considered. However, the expectation during the plan development process is that SCAG and local jurisdictions take into account the increase in available sites resulting from RHNA when developing the Connect SoCal 2024 household forecast.

Summary of SCAG Past Practices

SCAG's regional and subregional growth forecast practices are described below.

Regional Forecast

In the current cycle and for the last several plan cycles, SCAG has used a coupled demographic/economic forecast process to produce its regional growth forecast. The three models in this process, and their interrelationships, are shown in Figure 3 below.

SCAG projects population using a cohort-component model. Cohort-component models are widely used in population forecasting and are based on the demographic equation that population at a future point is equal to the existing population plus births and in-migrants and minus deaths and out-migrants.¹⁵

SCAG's age, sex, and race/ethnicity-specific population forecasts are assigned to group quarters or household populations, based on historical patterns of group quarters residence. Group quarters populations are expected to live in dorms, barracks, prisons, or other group residential

¹⁴ Monterey County Now. "The state says the Peninsula must build, but also holds back on water." https://www.montereycountyweekly.com/opinion/local_spin/the-state-says-the-peninsula-must-build-but-also-holds-back-on-water/article_e607987a-c65e-11ec-b8f4-afd0dae88c90.html

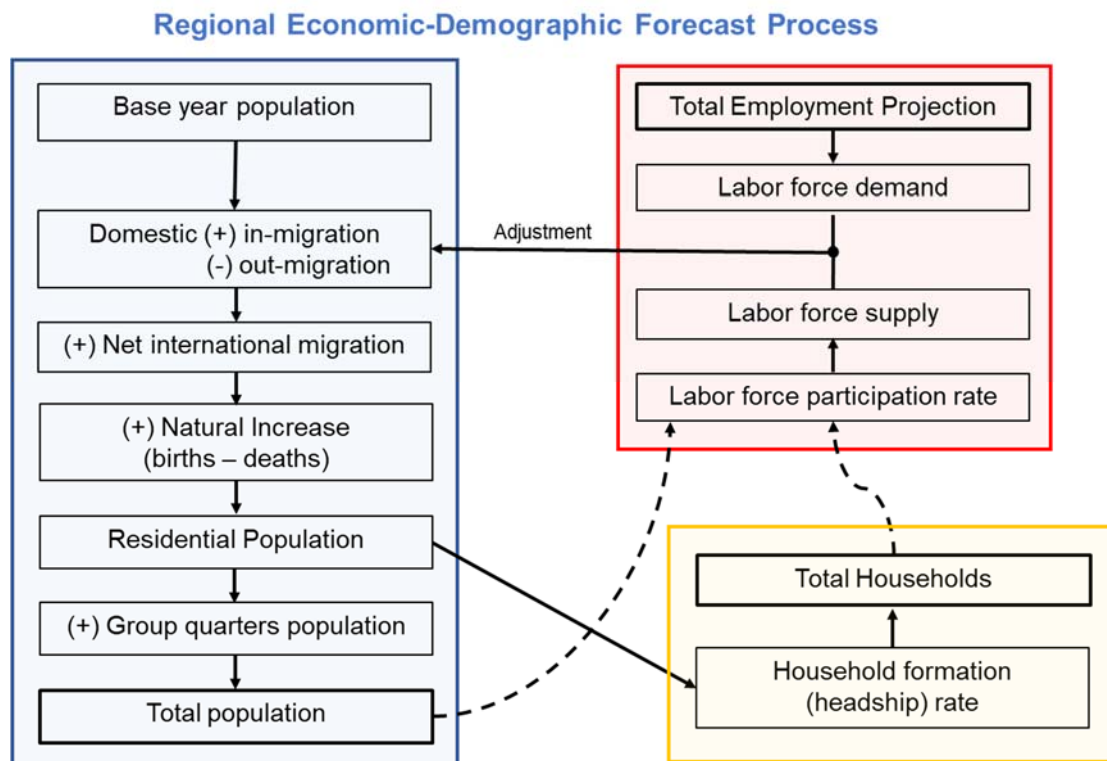
¹⁵ Thomas Wilson, Irina Grossman, Monica Alexander, Philip Rees, Jeromey Temple, "Methods for small area population forecasts: state-of-the-art and research needs," SocArcXiv (2021), <https://osf.io/preprints/socarxiv/sp6me/>.

facilities such as assisted living facilities. Household populations are expected to live in housing such as single family homes, apartments, condos, or similar residential structures. Household population data are multiplied by a set of household formation (headship) rate assumptions to generate a disaggregated forecast of households. Similarly, labor force supply is projected by applying labor force participation and double-jobbing rates to the population.

SCAG projects employment using a shift-share model. To ensure model sensitivity to demographic trends, the cohort component, household, and labor force components of the model rely on male and female population by single year of age and eight racial/ethnic groups.

In each forecast cycle, SCAG presents the forecast framework, assumptions, and results to a Panel of Experts for review and feedback.

Figure 3: Regional Forecast Framework Includes Interrelationships Between Population, Jobs, and Housing



For more information see SCAG, "Regional Forecasting," <https://scag.ca.gov/regional-forecasting>.

Subregional Forecast

For the 2016 RTP/SCS, SCAG used the Small Area Dynamic Allocation Model (SADAM) for producing the subregional growth forecast, including population, household, and employment at City/Tier 2 transportation analysis zone (TAZ) levels for years 2012, 2020, 2035, and 2040.

For the 2020 RTP/SCS, SCAG used a similar approach, and coordinated with local jurisdictions through a process referred to as the Bottom-Up Local Input and Envisioning Process that facilitated the collection of local land use information and alignment with regional priorities, such as focusing growth near destinations and mobility options, promoting diverse housing choices, and promoting a green region.¹⁶

For the 2024 RTP/SCS, SCAG's subregional allocation will be based on a model that will be used to fit jurisdiction-level household growth to county control totals.¹⁷ Key inputs include SCAG's estimate of remaining general plan capacity, the 6th cycle RHNA allocation, and the regional growth forecast.

SCAG's jurisdiction-level estimate of remaining general plan capacity is a starting point for subregional forecast development and is based on the following parcel-level data attributes (to the extent they are available):

- General plan designation, using the most current version available to SCAG as of late 2021.
- Mid-point estimate within practical range of general plan capacity.
- Existing households, using existing land use data and block-level 2020 Census household counts.

To collect local input, SCAG engaged with jurisdictions one-on-one through the Local Data Exchange (LDX) process.¹⁸ This process aligns with SCAG's objective of rooting subregional forecasts in local planning policies.¹⁹ SCAG's other two objectives are that subregional forecasts are steered by the regional vision outlined in Connect SoCal (September 2020), and that they align with state policy, including the 6th cycle RHNA and SB 375 greenhouse gas emission reduction targets.

Alignment With RHNA

As noted above, in prior cycles the amount of growth implied by the eight-year RHNA was often similar to short-range projections for the region and typically was well within the growth expected within the long-range regional planning horizon. However, 6th cycle housing

¹⁶ SCAG, "Connect SoCal Growth Vision Methodology," <https://scag.ca.gov/sites/main/files/file-attachments/growth-vision-methodology.pdf?1603148961>

¹⁷ For more details on the 2024 model logic, refer to "SCAG Connect SoCal 2024 Preliminary Growth Forecast Methodology 4/28/22" https://mcusercontent.com/6d9ce5b9d2344154fc34fcc09/files/7ea992cc-a814-07b8-d8ef-44441864bab5/TWG_PrelimSEDMETHODology_042822.pdf?utm_source=SCAG+Community&utm_campaign=8250ec4f84-TWG_2022_05_02&utm_medium=email&utm_term=0_d8c0406cae-8250ec4f84-1301169010

¹⁸ Local Data Exchange Process Work Plan report to the Technical Working Group, January 2022, <https://scag.ca.gov/sites/main/files/file-attachments/twg012022fullpacket.pdf#page=95>.

¹⁹ SCAG, "Connect SoCal Growth Vision Methodology," <https://scag.ca.gov/sites/main/files/file-attachments/growth-vision-methodology.pdf?1603148961>

determinations are much closer to the total projected household growth for the 20-30 year long-range horizon.

SCAG's intent is to accommodate RHNA household targets at the regional level within the long-range planning horizon. However, some jurisdictions' RHNA targets would require a heretofore unseen level of development types—such as a small jurisdiction with predominantly single-family housing and no vacant land needing to redevelop large areas to high-density multifamily to meet their RHNA goal. Even if the jurisdiction rezones, market forces may make such redevelopment unlikely. Furthermore, it may take up to three years for housing elements and general plans to align with RHNA.

Forecasting at the subregional level relies on plan capacity, historical development trends, and constraints to development including both physical constraints (such as steep slopes and floodplains) and economic constraints (such as the relative costs of redevelopment/infill compared with greenfield development). As such there may be little evidence used in standard forecasting practice to support the contention that meeting RHNA numbers in every jurisdiction is the "most likely" future. This is especially true when a RHNA allocation is lower than the long-range expectation in *other* jurisdictions.

Dissemination Practices

SCAG has historically published region- and county-level data from the regional growth forecast, as well as jurisdiction-level data from the subregional forecast as part of a draft and final adopted plan. Preliminary TAZ-level forecasts are shared online, but data are caveated as being provided only for "required modeling purposes." Final TAZ-level data have historically only been shared under data sharing agreements; however, these may be considered public record based on the California Public Records Act (CPRA) and subject to disclosure.

Summary of Survey of Peer Practices

In May 2022, PRB surveyed five of the largest MPO/COGs in California: Association of Monterey Bay Area Governments (AMBAG), Metropolitan Transportation Commission/Association of Bay Area Governments (MTC/ABAG), Sacramento Area Council of Governments (SACOG), San Diego Association of Governments (SANDAG), and Santa Barbara County Association of Governments (SBCAG). The survey was conducted online using the Survey Monkey platform.

PRB asked each MPO/COG to rank, in order of importance, the key uses of their combined regional/subregional modeling. In response, every group ranked Sustainable Communities Strategy (SCS) or transportation planning/modeling as their most important use. Housing planning/RHNA and other regional planning purposes received middle rankings, and all respondents ranked fiscal planning as least important.

Peer Practices for Regional Growth Forecasts

PRB also asked each MPO/COG about their forecast production. All five MPOs/COGs produce a point projection for their forecast. Only SBCAG produces forecast ranges, in addition to their point forecast. SANDAG is considering producing ranges for their next forecast.

When asked to rank factors for consideration in developing a regional forecast, the surveyed MPOs/COGs ranked economic/job trends and demographic trends highly. Factors ranking in the middle included state policies that may increase housing supply, change/greenhouse gas (GHG) target, infrastructure, and local land use plans/zoning. At the bottom of most lists were technological change and resource availability (such as water).

Responses to the question “What revisions do you make to the regional forecast between preliminary acceptance (such as a version accepted for planning purposes) and final (such as the forecast in the adopted/approved RTP/MTP/SCS)?” were mixed. Multiple responses were allowed.

- Two respondents noted no changes between their preliminary and final forecasts.
- Three said they revise to reflect the latest data and community and stakeholder input.
- Two said they revise to reflect state policies and changes to state policies (such as RHNA).
- Two said they revise to reflect local land use plans and policies.

Peer Practices for Subregional Growth Forecasts

The question “What model or method do you use for subregional allocation?” generated a wide variety of answers, from models based on prior growth patterns to simulation models to scenario-driven projections.

- Among the trend-driven approaches, one MPO/COG reported a bottom-up approach, with employment based on existing shares of jobs within the region and population based on trends. Another reported using a top-down, shift-share approach for employment and population, which is then bounded by reasonably anticipated growth given local constraints to development.
- Two MPOs/COGs said they relied on simulation models for their subregional forecast. One appeared to use a scenario-driven approach described as “an iterative process of examining planning regulatory environments, proxies for market demand, and policy factors” to allocate regional growth to parcels.
- Two MPOs/COGs noted that they used the model UrbanSim, or a modified version of UrbanSim, for their most recent forecast.
- One used the tool Envision Tomorrow Online.

There were a range of responses to “What revisions do you make to the subregional forecast between preliminary acceptance (such as a version accepted for planning purposes) and final (such as the forecast in the adopted/approved RTP/MTP/SCS)?”

- Two respondents noted no change, although one qualified that a change might be made in the case of “large changes to local land use plans as requested by a local jurisdiction.”
- Three respondents said they revise to reflect the latest data (one specified data from the California Department of Finance), local land use plans and policies, and community and stakeholder input, with two saying they also revise to reflect state policies (such as RHNA).

When reflecting on feedback from member jurisdictions, most respondents reported jurisdictions finding jobs/employment forecasts to be either reasonable or too low, while housing forecasts were seen as too high or much too high.

MPOs/COGs were also asked, “If local land use plans are insufficient to accommodate projected regional growth, how do you reconcile the two?” Given that the horizon of regional forecasts extends beyond the horizon of most general plans, MPOs/COGs had several responses.

- One noted the difference in horizon year and described an iterative process (where the forecast informs the next general plan update, and that update goes into the next forecast).
- One reported working with local jurisdictions to find areas to accommodate the difference.
- Three reported using another visioning/planning technique to accommodate the difference, with one providing examples of areas (those with high demand and low VMT) that are targeted for additional growth.

In this survey and other available plan documentation, all MPOs/COGs also described working in collaboration with local land use authorities to review and adjust plan land use scenarios.

Finally, MPOs/COGs were asked, “Please describe the process for how local (i.e., jurisdiction) input is incorporated into your regional and subregional forecasts.” Respondents were unanimous that local input is considered in the subregional forecast. While the mechanisms differed—from advisory committees, to one-on-one meetings with all jurisdictions, to inviting all jurisdictions to review—all MPOs/COGs incorporated a local input and/or local review step in their subregional forecast.

Peer Practices for Alignment With RHNA

One MPO/COG responded that although not all jurisdictions were actively engaged during the development of the subregional forecast, several “became very invested in input data accuracy during RHNA.” No MPO/COG explicitly mentioned using current cycle RHNA targets as a minimum threshold for future growth, though this may have occurred implicitly in some places. Informal discussions among agency staff suggest that the need to better define the relationship between the RHNA and the SCS (described in the section Alignment With RHNA, above, in the context of the SCAG region, above) are shared by other MPOs/COGs.

Peer Practices for Disseminating Subregional Data

Once a forecast is complete, MPOs/COGs use a variety of methods to make their subregional data public. Most publish the data in downloadable files on their websites. Some have interactive online tools that allow users to find forecast data for a specific location.

All publish their forecast data for their region—whether in written form as part of their plan or in a downloadable tabular format. Most MPOs/COGs also publish at the jurisdiction level.

MTC/ABAG models at the parcel level and publishes data for a variety of geographic levels, including superdistricts, a combination of TAZs that can be useful for transportation modeling. ABAG/MTC may also publish some jurisdiction- and county-level results as part of the RHNA process. They also make TAZ-level data available, but TAZ-level estimates of future households and jobs are not considered part of the final adopted plan. The data are shared with the public with a disclaimer that they are used for planning purposes only.

AMBAG and SBCAG publish jurisdiction-level data as part of their forecast. They also distribute TAZ-level data, upon request, to other local government agencies for their own planning and analysis.

SACOG produces forecasts of land use and housing at the parcel level and publishes data at the TAZ-level and other geographic areas, including regional analysis district (RAD), jurisdiction, and county levels.

SANDAG makes forecast data publicly available for a variety of pre-tabulated geographic areas, ranging from jurisdictions to census tracts. These tabulations are based on modeled data for smaller, sub-TAZ areas roughly the size of a census block, called mgras. Like AMBAG and SBCAG, SANDAG also shares small area forecast data (TAZ or mgra) with other local government agencies upon request.

When MPOs/COGs share small area data, such as TAZ-level projections, they often include caveats and disclaimers to emphasize that the data are meant for modeling purposes and not a prediction of what will occur.

Discussion

Through the course of this assessment, two themes stand out: (1) Uncertainty is an important, if undervalued, consideration in all growth forecasting, and (2) While there is no one industry standard modeling framework for subregional forecasting, engagement with local land use authorities is common practice.

This assessment suggests that most regional governments could broaden how they address forecast uncertainty. Most MPOs/COGs develop point forecasts to support their transportation plan. Few MPOs/COGs directly address uncertainty in their regional forecasts through confidence intervals or forecast ranges, and we did not find any that directly address uncertainty in their subregional forecast.

Based on survey results, it appears that there is no one method for regional forecasting that is preferred by all, or even most, large MPOs/COGs in California. Methods range from cohort-component to shift-share models to input-output models (like REMI). When considering factors to incorporate into the forecast, data-oriented trends (such as economic and demographic trends) ranked highest, policies ranked in the middle, and technological change and resource availability ranked lowest. This prioritization of forecast considerations may reflect the relative knowability of each factor. Economic and demographic trends tend to be relatively stable, while future technological change may seem relatively unknowable.

Similarly, it appears that there is no one method for subregional forecasting that is preferred by all, or even most, large MPOs/COGs in California. Some regions use probabilistic land use models like UrbanSim. Some disaggregate regional totals based on pipeline projects and general plans using in-house accounting tools or models, relying heavily on local jurisdiction input.

Despite using a wide variety of tools, all MPOs/COGs engage with local land use authorities (such as cities, counties, federal agencies, and universities) when developing their subregional forecast. It is beyond the scope of this report to assess the accuracy of any particular framework. However, all frameworks likely benefit from engagement with local land use authorities in the early years of the subregional forecast, and all likely face increasing uncertainty in the later years of the forecast.

There are use cases for producing a single point forecast. Nevertheless, best practice, as described by the Transportation Research Board, is to address forecast uncertainty directly at all stages of the transportation plan—including regional and subregional forecasts. For example, such information could include forecast ranges (for the regional forecast) and multiple development scenarios (for the subregional forecast).

Regarding multiple development scenarios, many COGs do consider one or more subregional forecasts as part of their environmental impact reports. However, as noted above, PEIR scenario forecasts are often extremes that are better suited for analyzing transportation network sensitivity than reflecting a true range of anticipated future outcomes. Considering additional, less extreme, subregional forecast scenarios may help with understanding and communicating uncertainty—especially as it relates to considering the potential outcomes of policy influences such as RHNA.

In addition, because the SCS does not have to conform to existing general plans and zoning—nor do general plans and zoning need to change to reflect the SCS—the SCS introduces an additional level of uncertainty in subregional forecasts. On one hand, requirements to reduce greenhouse gas emissions may result in SCS land use assumptions that concentrate future housing in, for example, infill developments near transit. While this approach is commendable for resource conservation, infill projects have historically faced lengthy and difficult approvals processes, making their outcome far from certain even if the local land use authority puts the

necessary zoning rules into place. On the other hand, projects in the SCS are linked to California Environmental Quality Act (CEQA) streamlining opportunities. Thus, for example, a dense, transit-adjacent development being included in the SCS may increase the likelihood of development or redevelopment and thereby reduce subregional forecast uncertainty. The interplay between these forces requires further study.

In conclusion, as this report has outlined, forecasting always involves uncertainty, but less so in stable context. The policy direction in California is arguably oriented toward changing historical trends, and this adds an additional level of uncertainty to forecasting.

MPOs/COGs should consider providing additional information about forecast uncertainty to provide decisionmakers with context. In addition, MPOs/COGs should clearly communicate the trends and policy assumptions that were incorporated into their forecast(s) so that end users can understand whether or not a forecast is suited to their needs.



Forecasted Regional Development Pattern – *Process Update*

Kevin Kane, PhD
Program Manager, Demographics and Growth Vision
January 19, 2023
Technical Working Group

WWW.SCAG.CA.GOV

1

Presentation Outline

- Connect SoCal 2024 Local Data Exchange Process Status
- Versions of the *Forecasted Regional Development Pattern*
- Data dissemination & California Public Records Act

2

Connect SoCal 2024 Local Data Exchange

<https://sub.scag.ca.gov>
<https://scag.ca.gov/local-data-exchange>

Land Use

Transportation

Priority Development

Geographical Boundaries

Green Region Resource Areas

Growth

Submit LDX Survey

SCAG wants to better understand the needs, existing conditions and planning in the region. Your feedback from the local perspective is essential to help us develop Connect SoCal 2024. Please respond to each survey question as it pertains to your jurisdiction. Due to the multidisciplinary nature of the questions, we encourage interdepartmental collaboration. Please respond to the survey by 10/20/2022.

[Take Me To the Survey](#)

3

LDX Data/Verification Form

Please use this form to formally indicate that you have completed review of data for which SCAG is seeking update/corrections or optional review during the LDX process. For each layer reviewed, please indicate whether the review was provided through the Regional Data Platform (RDP) or via email to ldx@scag.ca.gov.

Category	Layer	Review Type	Review Provided Via:	Notes/Comments – Continue on back if needed
Land Use	General Plan	Update	<input type="checkbox"/> RDP <input type="checkbox"/> Email	
	Zoning	Update	<input type="checkbox"/> RDP <input type="checkbox"/> Email	
	Existing Land Use	Update		
	Specific Plan	Update		
Priority Development	Key Entitlements	Update		
	Neighborhood Mobility Areas	Optional		
	Livable corridors	Optional		
Transportation	Housing trajectory	Update		
	Regional bikeways	Optional		
	Regional truck routes	Optional		

Growth/SED	Year	Jurisdiction-level	TAZ-level	Sent by:	Notes/Comments – Continue on back
Total Households	2019	<input type="checkbox"/> Approve <input type="checkbox"/> Revise	<input type="checkbox"/> Approve <input type="checkbox"/> Revise	<input type="checkbox"/> RDP <input type="checkbox"/> Email	
	2035	<input type="checkbox"/> Approve <input type="checkbox"/> Revise	<input type="checkbox"/> Approve <input type="checkbox"/> Revise	<input type="checkbox"/> RDP <input type="checkbox"/> Email	
	2050	<input type="checkbox"/> Approve <input type="checkbox"/> Revise	<input type="checkbox"/> Approve <input type="checkbox"/> Revise	<input type="checkbox"/> RDP <input type="checkbox"/> Email	
Total Employment	2019	<input type="checkbox"/> Approve <input type="checkbox"/> Revise	<input type="checkbox"/> Approve <input type="checkbox"/> Revise	<input type="checkbox"/> RDP <input type="checkbox"/> Email	
	2035	<input type="checkbox"/> Approve <input type="checkbox"/> Revise	<input type="checkbox"/> Approve <input type="checkbox"/> Revise	<input type="checkbox"/> RDP <input type="checkbox"/> Email	
	2050	<input type="checkbox"/> Approve <input type="checkbox"/> Revise	<input type="checkbox"/> Approve <input type="checkbox"/> Revise	<input type="checkbox"/> RDP <input type="checkbox"/> Email	

If growth/SED were revised, please select a reason and describe:

Category	Reason	Description – Continue on back if needed
Correction	<input type="checkbox"/> General Plan capacity (current or expected future)	
Correction	<input type="checkbox"/> Entitlements	
Local Policy	<input type="checkbox"/> Zoning/plan changes resulting from the 6 th cycle housing element update	
Local Policy	<input type="checkbox"/> Growth will be focused in other priority development areas	
Local Policy	<input type="checkbox"/> Higher development potential in green region/resource areas	

See Data Review and Verification form.

4

LDX Current Status (as of 1/17/2023)

- Received input from **145/197 (74%)** of jurisdictions

County	Jurisdictions	Completed 1: Meeting	Received Input	Input on GIS Data/Maps	Input on Growth Forecast	Survey Submitted	Data/Verification form submitted
Imperial	8	6	1	1	0	1	0
Los Angeles	89	73	59	54	46	45	41
Orange	35	35	35	32	35	29	31
Riverside	29	16	20	17	19	14	15
San Bernardino	25	25	25	25	25	12	15
Ventura	11	9	6	6	6	5	5
TOTAL	197	164	146	135	131	106	107
Percent		83%	74%	69%	66%	54%	54%

- SCAG actively coordinated with subregional COGs to in Orange, Riverside, and San Bernardino Counties (thank you!)
- Data/Verification form submitted indicates that a jurisdiction has provided final sign-off on all their input

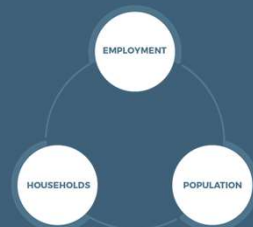
5

Forecasted Regional Development Pattern

"set forth a forecasted development pattern for the region, which, when integrated with the transportation network, and other transportation measures and policies, will reduce the greenhouse gas emissions from automobiles and light trucks to achieve, if there is a feasible way to do so, the greenhouse gas emission reduction targets approved by the state board, and (viii) allow the regional transportation plan to comply with Section 176 of the federal Clean Air Act (42 U.S.C. Sec. 7506)." California Government Code 65080(b)(vii)



- ✓ Demographic Expert Panel/Model
- ✓ Sustainability targets
- ✓ Data Available (TWG)



6

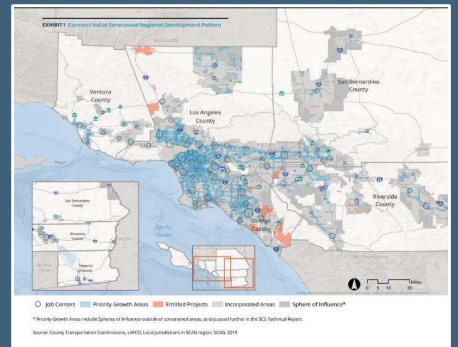
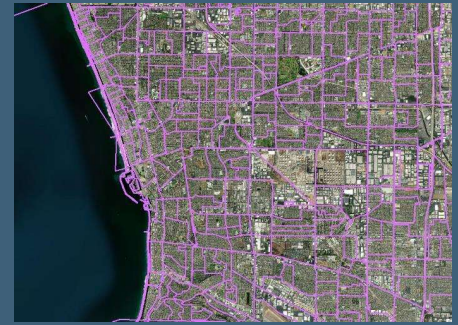
Versions – Forecasted Regional Development Pattern



- TAZ data are a building block of the plan:
 - Fulfill required modeling purposes
 - Map/data help understand how regional strategies may be reflected at the neighborhood level
 - Are advisory only and non-binding
- *Note: TAZ refers to City-split Tier2 TAZ*

Top: Sample of TAZs in the SCAG region.

Bottom: Connect SoCal 2020 Forecasted Regional Development Pattern



7

Versions – Forecasted Regional Development Pattern

Preliminary

- Generated by SCAG
- Released 5/23/22
- PDF-format TAZ data at scag.ca.gov/local-data-exchange
- Digitally for jurisdictions with credentialed login to RDP

Locally-Reviewed

- Generated by jurisdictions (using input received)
- SCAG staff will aggregate and evaluate
- Target: discuss at March 16, 2023 TWG
- *Proposed approach: Post read-only TAZ spreadsheet on TWG website*

8

8

Draft Connect SoCal

- Anticipated release October 2023
- Accompanied by full plan text and model outputs
 - Visualization of Forecasted Regional Development Pattern (details TBD)
- Formal public comment period

Final Connect SoCal

- Anticipated adoption April 2024
- Accompanied by full plan text and model outputs
 - Visualization of Forecasted Regional Development Pattern (details TBD)
- Updated version of SB 375 / SCS Consistency Technical Assistance – see https://scag.ca.gov/sites/main/files/file-attachments/senate_bill_375_-_ceqa_streamlining.pdf?1667860117

9

9

California Public Records Act Requirements

- California Office of the Attorney General: **“Access to information about the conduct of the public’s business is a fundamental and necessary right of every person in the state”**
- Public records in the **California Public Records Act** are defined as **“any writing containing information relating to the conduct of the public’s business prepared, owned, used, or retained by any state or local agency regardless of physical form or characteristics”**
- Writing is defined as **“any means of recording information including paper, audio tape, video tape, compact disc, DVD, computer diskette, computer hard drive, etc”**

California Office of the Attorney General and National Freedom of Information Coalition

10

10

California Public Records Act Requirements – Exceptions

- Sections 6254 and 6255 provide exceptions related to SCAG’s work:
 - Preliminary drafts, notes, or interagency or intra-agency memoranda that are not retained by the public agency in the ordinary course of business, if the public interest in withholding those records clearly outweighs the public interest in disclosure
 - If withholding records, the agency shall justify that action by demonstrating the record is exempt or that the public interest is served better by not disclosing
 - Requests for “curated” & original data that needs processing can be rejected
 - If produced and shared, however, this information becomes disclosable
 - Data with personal identifiable information (PII)

TAZ-level projection data are:

- Ordinarily retained
- Produced and shared
- Needed to evaluate of plan targets
- SCAG Strategic Plan core value: “Be open.”
- Not personally identifiable (avg pop. ~1500)

California Office of the Attorney General

11

Previously used disclaimers involving TAZ-level projection data

3. For the purpose of determining consistency with Connect SoCal for California Environmental Quality Act (CEQA), grants or other opportunities, lead agencies such as local jurisdictions have the sole discretion in determining a local project’s consistency; SCAG may also evaluate consistency for grants and other resource opportunities; consistency should be evaluated utilizing the goals and policies of Connect SoCal and its associated Program Environmental Impact Report (PEIR). However, TAZ-level growth projections for households, employment or population reflected in TAZ Maps may not be utilized to determine consistency or inconsistency with Connect SoCal.¹
4. TAZ-level data or any data at a geography smaller than the jurisdictional-level has been utilized to conduct required modeling analyses and is therefore advisory only and non-binding, given that sub-jurisdictional forecasts are not adopted as part of Connect SoCal. TAZ-level data may be used by jurisdictions in local planning as they deem appropriate, and Connect SoCal does not supersede or otherwise affect local jurisdiction authority or decisions on future development, including entitlements and development agreements. There is no obligation by a jurisdiction to change its land use policies, General Plan, or regulations to be consistent with Connect SoCal.

Top: Connect SoCal 2020 – Demographics and Growth Forecast Technical Report, p. 29

Right: Preliminary Projections in Connect SoCal 2024 Data Map Books, May 2023

DISCLAIMER

This preliminary draft growth projection was created as part of SCAG Data/Map Books to solicit feedback from local jurisdictions during the Connect SoCal 2024 Local Data Exchange (LDX) process. SCAG and local jurisdictions shall not be responsible for user’s misuse or misrepresentation of this preliminary draft growth projections, which shall be considered non-binding and has not been reviewed for accuracy or approved by local jurisdictions. For details regarding the sources, methodologies, and contents of these data, please refer to the SCAG Data/Map Book or contact LIST@scag.ca.gov. Please contact the local jurisdiction directly for further information on these subjects.

12

Proposed disclaimer to accompany March 2023 TWG release of locally-reviewed TAZ-level projection:

The locally-reviewed TAZ (Transportation Analysis Zone)-level growth projection reflects edits which local jurisdictions made to SCAG's preliminary growth projection between May and December 2022 as part of the Connect SoCal 2024 Local Data Exchange (LDX) process. These data reflect final input from jurisdictions which provided input or were granted an extension prior to the December 2, 2022 deadline. As such they represent a snapshot in time and may not reflect subsequently available information.

TAZ-level growth projection data are developed to conduct required modeling and are advisory and non-binding. They are a tool to understand how regional strategies may be reflected at the neighborhood level. There is no obligation by a jurisdiction to change its land use policies, General Plan, or regulations to be consistent with Connect SoCal.

Neither SCAG nor a local jurisdiction shall incur any responsibility as to the completeness, correctness, or accuracy of this information. For details regarding the sources, methodologies, and contents of these data, please refer to SCAG's Connect SoCal 2024 Data/Map Books or contact LIST@scag.ca.gov. Please contact local jurisdictions directly to ensure the most up-to-date planning, development, and construction information.

13

Next Steps

- 3/16 TWG: Evaluation of locally-reviewed evaluation
- Upcoming TWG (Mar/May?) – SCS consistency for CEQA streamlining
- Spring – Report evaluation results and county growth totals to policy committee(s)

14

Thank You!

<https://scag.ca.gov/local-data-exchange>

<https://hub.scag.ca.gov>

list@scag.ca.gov

Kevin Kane, PhD
Program Manager, Demographics and Growth Vision
kane@scag.ca.gov
www.scag.ca.gov





Assembly Bill 2334

Requirements & Potential Opportunities for Regional Collaboration

Technical Working Group – January 17, 2023

Tom Vo, Principal Regional Planner

WWW.SCAG.CA.GOV

Overview

- Background Information
- Technical Information
- Publicly Available Tools
- Local & Regional Potential Collaboration
- Open Discussion

AB 2334 Background Information

- Approved by Governor Newsom on 9/28/2022
- Effective on January 1, 2023
- Authored by Assemblymember Buffy Wicks & Senator Scott Weiner
- Built upon State's Density Bonus Framework:
 - Increases housing developments including projects with affordable units
 - Further expands on AB 1763 (approved in 2019) which allows density bonus ONLY within a half-mile of a major transit stop



AB 2334 Background Information (cont.)

- **What does AB 2334 really do?**

- Aims to increase the number of eligible project sites to include all qualifying sites within very low vehicle-mile-traveled (VMT) areas in 5 (out of 17 statewide) designated counties within the SCAG region
- Enhances density bonuses for qualifying affordable projects (at least 80% of units to lower-income households) in very low VMT areas
 - Allows 100% affordable housing projects to receive unlimited density & height increase of 33 ft (or 3 stories)
 - Additional analysis required at the local level to determine the specific qualifying areas

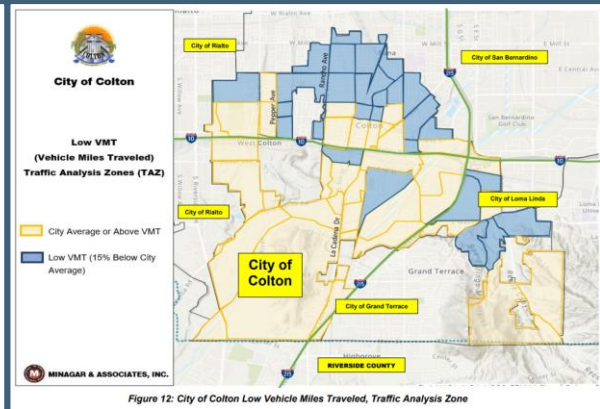
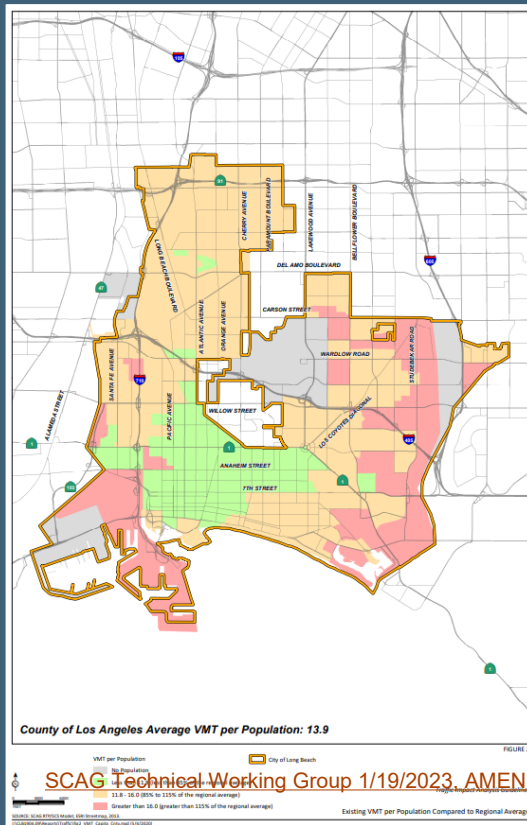


Technical Information

- **What are 'very low VMT areas'?**
 - "Urbanized Area . . . where the existing residential development generates VMT per capita that is below 85% of either regional VMT per capita or city VMT per capita"
 - Urbanized Areas (e.g., Census, Caltrans, etc.)
 - Population (e.g., SCAG, Census, DOF, etc.)
 - VMT (e.g., SCAG, CTC, StreetLight, INRIX, etc.)
 - 'Area' may include a Travel Analysis Zone (TAZ), hexagon, or grid

Publicly Available Tools

- Existing tools & data developed for SB 743 implementation may facilitate implementation of AB 2334



Project Information

Project: _____
 Scenario: _____
 Address: _____

TDM Strategies

Select each section to show individual strategies. Use **0** to denote if the TDM strategy is proposed part of the project or is a mitigation strategy.

Parking

Reduce Transit Headways: Proposed Mitigation
 100 percent reduction in headways (increase in frequency)
 6 percent existing transit mode share (as a % of total daily trips)
 >= 50 percent of lines within project site improved

Implement Neighborhood Shuttle: Proposed Mitigation
 low degree of implementation
 50 percent of employees and residents eligible

Transit Subsidies: Proposed Mitigation
 100 percent of employees and residents eligible
 amount (dollar) of transit subsidy per passenger (daily equivalent)
 5.96

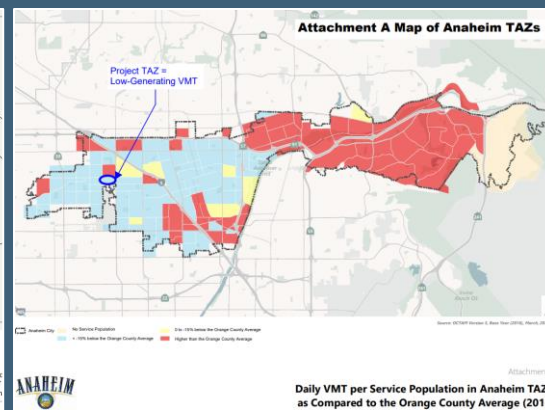
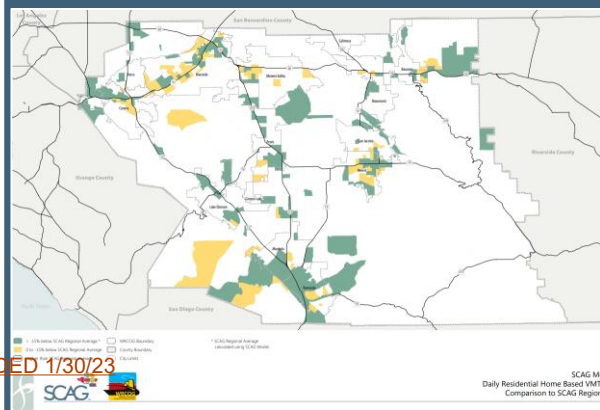
Education & Encouragement
 Commute Trip Reductions
 Shared Mobility
 Bicycle Infrastructure
 Neighborhood Enhancement

Analysis Results

Proposed Project	With Mitigation
279 Daily Vehicle Trips	223 Daily Vehicle Trips
1,684 Daily VMT	1,347 Daily VMT
7.5 Household VMT per Capita	6.0 Household VMT per Capita
0.0 Work VMT per Employee	0.0 Work VMT per Employee

Significant VMT Impact?

Household: Yes	Household: No
Threshold = 6.0 15% Below APC	Threshold = 6.0 15% Below APC
Work: No Threshold = 7.5 15% Below APC	Work: No Threshold = 7.5 15% Below APC



OPR Site Check Tool (<https://sitecheck.opr.ca.gov/>)

The screenshot displays the OPR Site Check Tool interface. At the top, there is a navigation bar with the CA.GOV logo, social media icons, and the title "Site Check" with a green checkmark. On the right side of the navigation bar are links for "Create Link", "Methods", "Other Resources", and "Help".

The main interface is divided into a left sidebar and a central map area. The sidebar contains four tabs: "About", "Analyze", "Screen", and "Explore", with "Screen" currently selected. Below the tabs, there are several filter sections:

- Transit:** "Parcels that match any of the following options will be included." This section includes four unchecked checkboxes:
 - 1/2 mile of an existing Major Transit Stop
 - 1/2 mile of stops on an existing High-Quality Transit Corridor
 - 1/4 mile of an existing High-Quality Transit Corridor
 - 1/2 mile of an existing High-Quality Transit Corridor
- Vehicle Miles Traveled:** One checked checkbox:
 - Per Capita VMT: Below Regional Average
- Parcels must avoid the following:** This section includes ten unchecked checkboxes:
 - Rare, Threatened and Endangered species
 - Habitats
 - Wetlands
 - Prime farmlands or farmlands of statewide importance
 - Earthquake/Seismic Hazard zone
 - State Conservancy Boundary
 - Riparian Areas
 - Landslide Hazard
 - Flood Plain
 - Wildfire Hazard

The central map area shows a detailed street grid for Buena Park, Stanton, and Placentia. Major roads like CA-91 and SR-57 are highlighted in orange. The map includes zoom controls (+/-) in the top right corner and a copyright notice at the bottom left: "Tiles © Esri — Esri, DeLorme, NAVTEO".

F&P VMT+ | Providing VMT Per Capita Estimates Across California

(<https://storymaps.arcgis.com/stories/e9fb17d33a2c4d60a6747071be3d5b4a>)

VMT+ | Providing VMT Per Capita Estimates Across California
Derived from StreetLight Data
FEHR | PEE

Find your VMT

Zoom to your area of interest then use the selector to select and view block group VMT values.

Select

Use the Geocoder to find your area of interest -

Regional Filters

Select a single or multiple filters to create a subset of block groups VMT below or above regional VMT averages. Regions are jurisdictionally based: City / Unincorporated County (UC), County, or MPO.

HBX Filter by City / Uninc County
0 - < 15% below the City / UC VMT av...

HBW Filter by City / Uninc County
Below or above City VMT average

HBX Filter by County
Below or above County VMT average

HBW Filter by County
Below or above County VMT average

HBX Filter by MPO
Below or above MPO VMT average

HBW Filter by MPO
Below or above MPO VMT average

Block Group: 060375357011
HBX VMT: 15.2

- 0 - < 15% below the City / UC VMT average
- ≥ 15% below the County VMT average
- ≥ 15% below the MPO VMT average
- ≥ 15% below the Statewide VMT average

HBW VMT: 12.9

- Higher than the City / UC VMT average
- 0 - < 15% below the County VMT average
- 0 - < 15% below the MPO VMT average
- ≥ 15% below the Statewide VMT average

City: South Gate
HBX VMT: 16.4, HBW VMT: 11.3

County: Los Angeles
HBX VMT: 18.3, HBW VMT: 14.2

MPO: Southern California Association of Governments
HBX VMT: 20.6, HBW VMT: 15.0

Statewide VMT Averages:
HBX: 21.1, HBW: 15.3

Jurisdiction (Resident HBX)

Jurisdiction	Vehicle Miles Traveled
BG	15.2
City	16.4
County	18.3
MPO	20.6

Select your Block Group

Resident HBX Heatmap Statewide average

Employee HBW Heatmap Statewide average

Jurisdiction (Employee HBW)

Jurisdiction	Vehicle Miles Traveled
BG	12.9
City	11.3
County	14.2
MPO	15

Local & Regional Potential Collaboration

- **Locally, AB 2334:**

- Suggests local governments administer the Density Bonus Law (e.g., ordinance)
- Suggests additional analysis is needed to determine the methodology for identifying 'very low VMT' areas

- **Regionally, AB 2334:**

- Applies to 5 (out of 17 statewide) designated counties within the SCAG region
- Suggests local governments may use 'regional' or 'city' VMT per capita

- **Potential local & regional collaboration, SCAG:**

- May provide technical assistance in supporting or conducting residence-based very low VMT per capita analysis & data for the region

Open Discussion

Open Discussion:

- Should SCAG proactively provide a SCAG region per capita VMT estimate with a detailed SCAG transportation model and methodology?
 - What should be the base year (both model and SED) that best reflects AB 2334 language on "existing residential development"
 - Should SCAG coordinate with CTCs, subregions/local jurisdictions, and stakeholders for a common base year, consistent model, methodology, and likely ranges of per capita VMT estimate?
- Should local jurisdictions be encouraged to use the available county model (e.g., LA Metro, SBCTA, OCTA, etc.)?
 - Developing jurisdictional level per capita VMT estimates
 - Identifying appropriate sub-jurisdictional level geographic areas, and
 - Associated per capita VMT estimates



THANK YOU!

For questions or suggestions, please contact Tom Vo at vo@scag.ca.gov.