

An aerial photograph of a city at sunset. The sky is a gradient of orange, yellow, and blue. The city below is densely packed with buildings, and many windows and streetlights are illuminated, creating a warm, glowing effect. The overall scene is a mix of natural light from the setting sun and artificial light from the city.

**TOWARD A
SUSTAINABLE
FUTURE:**

**IS SOUTHERN
CALIFORNIA
ON TRACK?**

MEASURING PROGRESS ON SOUTHERN CALIFORNIA'S
SUSTAINABLE COMMUNITY STRATEGY



Presented by

ClimatePlan

and

Safe Routes to School National Partnership

In Partnership with:

American Lung Association in California

California Walks

Climate Resolve

Friends of Harbors, Beaches and Parks

Investing in Place

Move LA

Natural Resources Defense Council (NRDC)

Prevention Institute

TransForm

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Executive Summary

The Southern California region is home to over eighteen million people, half the state's population. It encompasses diverse communities and stark contrasts: from coast to high desert, from the boulevards of Hollywood to the dirt roads of farming communities. It is the nation's largest metropolitan planning region, and leaders from all its communities are coming together now to plan for its growth and investments in the years to come.

With a clear sense of the vision ahead, the progress thus far, and the steps still needed, Southern California's leaders can get the region ready for what the future brings. Together, they can build a more sustainable future and a better quality of life for all.

A Plan For A More Sustainable Region

In 2012, this diverse region adopted its first Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). This regional plan, required by state law SB 375, shows how the region's towns, cities, and counties will act together to reduce greenhouse gas emissions through more sustainable transportation and land use. The 2012 plan set out to do this in a way that would also create a more healthy and prosperous region.

Now, the second regional plan has just been adopted by the Southern California Association of Governments (SCAG). It's a good time to ask:

Since the first plan's adoption, what progress has the region made?

Measuring Progress

In the last SCS, the region set ambitious goals to shift from "business as usual" and commit to fight climate change, create cleaner air and safer streets, and bring opportunity to all. Is the region on track to meet its goals?

To answer this question, ClimatePlan, the Safe Routes to School National Partnership, and our partners have prepared this report. We asked:

Is the 2012 RTP/SCS being implemented, and what are the results so far?

We measured the region's progress on nine metrics: greenhouse gas emissions, public transit, transit-oriented development, active transportation, affordable housing, land conservation, public health, equity, and regional funding for local planning.

The results can inform local, regional, and state decisions. They show where the region is succeeding, what challenges persist, where new local strategies are needed, and what requires more federal and state support.

There is one caveat: to measure progress, you need good data. One of our most consistent findings, unfortunately, was that the available data is often outdated, incomplete, or both. If the region can't accurately measure progress, it's unlikely it will reach its goals. Better data is needed, and consistent tracking and reporting. The Southern California Association of Governments uses its excellent research and analysis capacity to help with this, and we encourage it to do even more.

Top Recommendations

The results on each metric are below. We have four key actions to recommend:

1. CONNECT TRANSPORTATION DECISIONS TO IMPACTS ON THE CLIMATE AND COMMUNITIES

SCAG and County Transportation Commissions can work together to make sure that county transportation plans clearly show the climate impacts of proposed transportation projects, both in terms of greenhouse gas emissions (GHG) and vehicle miles traveled (VMT). SCAG has done considerable work to plan for health, equity, and conservation; transportation plans can also show outcomes for these priorities. County transportation plans should help deliver on these priorities. The plans should show how those investments will meet the region's goals.

2. INVEST MORE AND SOONER IN PUBLIC TRANSIT, BIKING, AND WALKING

The new RTP/SCS and county transportation plans should continue to grow their investment in public transit and active transportation, and invest sooner where possible. They can be made even more effective by implementing first mile/last mile plans to help people walk and bike easily and safely to transit. These investments are especially important in disadvantaged communities that depend most on public transit, walking, and biking; they will help people reach new opportunities and build better lives.

3. CONVENE LEADERS AND GET BETTER DATA TO SUPPORT ACTION

SCAG should continue its excellent work to bring people together to address crucial regional issues, such as environmental justice, equity, gentrification, displacement, land conservation, and rural issues.

SCAG's impressive research capacity can support communities to take action on these issues. SCAG has made good progress in analyzing the impacts of new development and transportation investments on disadvantaged communities; this should guide new planning and investment. Better data is still needed on some critical regional questions, such as tracking where job and housing growth is occurring and how many affordable homes are being built.

4. STEP UP

Every county, every city, and every town must do its part if the region is to succeed. The state and federal government must step up too, providing more funding for planning and implementation, and aligning existing funding with goals.

Here are our findings on the region's progress since its first plan:

1. Greenhouse Gas Emissions

TRANSPORTATION PLANS

Some county transportation plans show their projects' impacts on the climate. All plans should show these, along with how they add up to meet regional and state greenhouse gas goals. This is not required, but it makes sense: County Transportation Commissions choose and fund the region's transportation projects; their plans should clearly align with the region's goals. Los Angeles, Orange, and San Bernardino counties have taken some steps to estimate climate impacts in their long-range transportation plans; Ventura and Imperial have not, and Riverside does not have a long-range transportation plan.

Some counties have not updated their long-range transportation plans since the 2012 RTP/SCS adoption; Riverside County does not yet have one.

VEHICLE MILES TRAVELED

People are driving less, which is good news, but this change will need to speed up to meet the 2020 greenhouse gas reduction goal. Greenhouse gas emissions (GHG) from driving, approximated using per-capita vehicle miles traveled (VMT), are down by 1% since 2011 and by 3.3% since the base year of 2005. They need to go down faster to meet the goal of 9% by 2020, based on 2005 levels.

Data for direct greenhouse gas emissions was not available. Vehicle miles traveled (VMT) data is available through 2013. This should be tracked and reported against the goals in the state law and regional plan.

RECOMMENDATIONS

- With SCAG's help, County Transportation Commissions can estimate climate impacts of both individual transportation projects and whole plans, to clearly show how these will reduce GHG and VMT to meet regional goals. This will also show where more support may be needed.
- SCAG's extensive research capacity can quantify GHG reductions from a broader range of projects, such as active transportation, affordable housing, and land conservation.
- SCAG's well-known education, technical, and financial assistance programs can continue to help communities reduce GHG; special focus should go toward disadvantaged, small, and rural communities.

2. Public Transit

INVESTMENT

Public transit investment is close to meeting the region's goal now but will have to increase to keep pace with the plan. Los Angeles County's transit spending makes up three quarters of the region's total. Imperial County is spending almost half its transportation budget on public transit. Riverside and San Bernardino counties are spending very low proportions of their transportation budgets—just 0.4% and 3%, respectively—on transit. Counties should increase transit spending and prioritize investment in disadvantaged communities. State and federal investment in public transit must increase as well.

This data is available.

RIDERSHIP

Public transit ridership in Southern California is relatively low, and in several counties, including Los Angeles, has dropped recently. This may be due to fare increases, as well as longer-term impacts of service cuts during the recession. It is a worrisome trend.

The most recent data is from 2013, from the National Transit Database; more recent data is incomplete.

COMMUTING

Commuting by public transit is low, though it is higher in Orange County and highest by far in Los Angeles County. Building new jobs and homes close to transit can help. Innovative solutions are needed to help residents of rural and disadvantaged communities use transit to reach more job opportunities.

The most recent data is from 2013 from the American Community Survey.

RECOMMENDATIONS

- County Transportation Commissions (CTCs) can increase investments in public transportation to give residents more options and reach regional goals. Prioritizing disadvantaged communities will help the people who depend most on reliable public transit.
- Road and highway improvements will be more effective if they focus on complete streets and multimodal goals. Adding new lanes, as Caltrans recently noted, only "induces demand," failing to relieve gridlock.
- More county sales taxes can support public transit, and SCAG can help counties study these and alternative revenue sources as well.
- Updating county transportation plans more frequently, with a transparent and inclusive approach, will help build community support.
- To increase mobility in rural areas, SCAG can help CTCs to identify and fund more solutions such as vanpools and ride-sharing.
- Jurisdictions must continue to plan for and build more homes and jobs near public transit.
- Federal and state sources must provide more revenue to support public transit.

**¡LUCES PARA BICI
GRATIS!
POR FAVOR PARE AQUÍ**



**FREE
BIKE LIGHTS!
PLEASE STOP**



Executive Summary (CONTINUED)

3. Active Transportation: Walking and Biking

INVESTMENT

Investment in active transportation is meeting the region's 1% goal—but that is too low. It will need to increase quickly to keep up with the plan and meet the need. Much of this planned spending was deferred to the end of the plan. The 1% goal is too low; 21% of all trips are made on foot or by bike. More funding is needed. Los Angeles and Riverside counties' investment is higher, and Imperial County's is an impressive 10% of its transportation budget. The new plan and county transportation programming should increase spending and bring it forward.

The data is available, though some active transportation improvements are included in other projects, and not all active transportation projects are included in the Federal Transportation Improvement Program.

COMMUTING

Commuting by walking and biking still occurs at very low rates in the Southern California region. Continuing to build new jobs and homes close to each other and to services will enable more people to walk and bike easily. Complete Streets plans also need to be funded and implemented to make safe walking and biking possible.

The most recent data is from 2013 from the American Community Survey. Commuting is not the best measure; people tend to walk and bike more for other trips, but that data is lacking.

INJURIES AND DEATHS

Injuries and deaths suffered by people who walk and bike occur in the Southern California region at slightly higher rates than statewide (35% of all traffic injuries and fatalities, vs. 32% statewide); it's not clear yet whether this is changing. Though walking and biking are the most healthy and sustainable forms of transportation, too many people are still being hurt or killed by cars.

The most recent data is from 2013 from SWITRS. This data is also both delayed and incomplete. Walk and bike trip data is needed to help evaluate levels of risk.

RECOMMENDATIONS

- The region can do far better than a goal of 1%; by investing more, and sooner, CTCs can help thousands of people to walk and bike on safer streets every day. This investment is especially important in disadvantaged communities, where more people walk and bike to public transit and are more vulnerable to collisions.
- County sales taxes can include more support for walking and biking, and show voters their investment will make communities safer.
- Federal and state sources must do more to support active transportation infrastructure.
- Jurisdictions can continue adopting—and funding—first mile / last mile and Vision Zero plans to help people reach transit easily and make all road users safer.
- SCAG can help communities gather and share better data on active transportation, especially on walk/bike trips and on safety, since state and national data is often outdated or incomplete.

4. Affordable Housing

HOUSING ELEMENT

Of all the region's jurisdictions, 83% have updated housing elements, their plans for building new homes—including affordable homes—to meet projected population growth. Nearly one out of five jurisdictions are out of compliance with the law on this, including both the city and the county of Riverside.

This data is available and up to date.

AFFORDABLE HOUSING BUILT

In recent years, in cities and counties that reported, only 13% of needed affordable homes were actually built. This is a generous estimate—the shortfall may even be greater, as cities and counties that did not report may have built even less.

This data is from housing element progress reports from 2006 to 2013, which are incomplete; only about half the region's jurisdictions reported.

RECOMMENDATIONS

- If cities and towns plan for 125% of the affordable homes needed, they are more likely to build more of these homes, as not all plans come to pass.
- The problem is harder to address when cities and towns don't report the number of affordable homes actually built—the state can help make this reporting easier.
- Cities and towns can adopt more policies to help get affordable homes built, such as increasing density along transit corridors, lowering parking requirements, and using effective inclusionary ordinances.
- To encourage good planning, SCAG can require jurisdictions to have certified, up-to-date housing elements in order to receive Sustainability Program funds.
- A dedicated long-term source of funding for affordable housing is needed from the state; more federal funding is needed as well.
- SCAG can convene regional leaders and stakeholders to share solutions and support for addressing gentrification and displacement.

5. Transit-Oriented Development

JOBS AND HOUSEHOLDS NEAR TRANSIT

Current data is not available, but from 2008 to 2012, although the region lost jobs overall during the recession, it actually gained jobs in high-quality transit areas, suggesting that jobs near transit may be more resilient. This data also indicates that housing development near transit must accelerate to meet the goals.

No data since 2012. Jobs and housing data from the Census Bureau, HQT (2035) data from SCAG.

RECOMMENDATIONS

- Many cities are planning for more housing and jobs around transit lines; others can follow their lead, using strategies like reforming zoning and parking requirements to support compact development.
- As SCAG works with cities and counties to track where new growth is occurring, it can share this information frequently, to help show progress.
- SCAG should continue and if possible expand its work to help cities and counties apply for new funding sources, such as the Affordable Housing and Sustainable Communities (AHSC) grant program, and to identify and share best practices in transit-oriented development (TOD) throughout the region.
- Efforts should take care to include disadvantaged rural areas, which need investment in existing communities, and to expand transit access there.
- To help compact development around transit reach its full potential, “first mile/last mile” plans need to be implemented to help people get to and from transit.

6. Land Conservation

PLANNING

Though the region has allocated funds for conservation planning, and mapped priority areas, no plan has yet been developed.

This information is available.

LAND DEVELOPMENT

No current data is available, but in the years leading up to 2012, open space was developed at a much greater rate than the RTP/SCS forecast. However, over time, this development did slow down, suggesting that the region could meet its goal.

This data is from 2012, from the State Farmland Mapping and Monitoring project. More recent data is needed.

RECOMMENDATIONS

- Counties should prioritize funding opportunities to conserve important landscapes.
- When new transportation projects travel through important landscapes that should be preserved, mitigation should be funded by the sales taxes used to build these new corridors; this funding should be made available in advance, and as part of a regional approach.
- SCAG should work with local jurisdictions to develop and implement a regional open space plan.
- SCAG should monitor and report rates of development and land loss.



7. Public Health

COLLABORATION

SCAG has made consistent efforts to collaborate with public health experts. The new plan should reflect the results of this collaboration, with clear goals for improving health.

This information is available.

PHYSICAL ACTIVITY

The rates of physical activity in Southern California are very low, though they are the same as statewide rates: only one in three people walks 20–30 minutes per day. Residents in Los Angeles and Orange counties are doing a little better, likely because walking and biking facilities are more readily available. Cities can help more people walk and bike by putting new jobs and houses near transit and providing first-last-mile connections, to make physical activity a part of daily transportation.

This data is from 2012, from the California Health Information Survey. More recent, consistent data is needed.

SMOG/OZONE

The region's ozone (smog) levels are very high, though they have improved over the long term. San Bernardino County, Riverside County, and the City of Los Angeles have the highest ozone levels in the country. This has not changed in recent years, and climate change tends to make it worse. The region's long-term improvement is impressive, though, and shows more is possible. Reducing driving will help.

This data is from 2013, from the American Lung Association's 2015 "State of the Air" report.

PARTICLE POLLUTION

The region's air quality is poor, as measured by particle pollution, though again, it has improved over the long term. Riverside and Los Angeles counties have the worst air, with Riverside one of the worst in the country. This has not changed recently, though long-term trends show that change is possible. Reducing driving will result in cleaner air.

This data is from 2013, from the American Lung Association's 2015 "State of the Air" report.

RECOMMENDATIONS

- SCAG has been working to connect planning and public health, and to reflect this, decision-making around the new RTP/SCS can use strong public health metrics, such as transportation-related physical activity, that are then closely tracked and reported.
- SCAG and local jurisdictions can work together to study and address pollution problems in underserved communities.

8. Equity

COLLABORATION

SCAG has not yet collaborated with local leaders and stakeholders to address neighborhood gentrification and housing displacement. SCAG could help this pressing issue by convening local representatives and by providing data.

This information is available.

ENVIRONMENTAL JUSTICE ANALYSIS

The region's size and diversity requires finer-grained analysis of the impacts of development; mitigation is needed so that new development helps, rather than harms, low-income communities of color. Too many communities still lack even basic infrastructure.

This information is available.

RECOMMENDATIONS

- SCAG's analytic capacity can help identify areas at risk of gentrification and displacement, planning accordingly, and supporting cities and towns to prevent and mitigate these impacts.
- SCAG's use of the "Communities of Concern" approach will be very helpful in identifying where and how to address inequities, and prioritizing investment based on social equity and data. Counties can adopt this approach as well.
- The state, SCAG, and local jurisdictions can all do more to get basic infrastructure built in low-income and rural communities, such as sidewalks, bike lanes, and vanpools. This will greatly improve residents' safety and quality of life.

9. Regional Support for Local Planning

REGIONAL FUNDING FOR LOCAL PLANNING

SCAG's Sustainability Program funding for planning has increased; it is a good small-scale model to support public transit, transit-oriented development, and active transportation—but far more funding is needed. County Transportation Commissions, and other regions, can use this funding program as a model for their own. Though the Sustainability Program funds have increased somewhat, they are still very small amounts.

This data is from 2013–14 from SCAG.

RECOMMENDATIONS

- SCAG can provide data and analysis on critical regional issues around transportation, housing, and equity, such as displacement.
- SCAG's Sustainability Program is a good model for funding local planning, and should be expanded with more funding.
- County Transportation Commission (CTC) can use this as a model to inform their spending decisions and provide much-needed funds for local planning.

Getting on Track

The Southern California region can achieve a more sustainable future, with safer, healthier communities, and opportunity for all.

Is it there yet?

No.

Can it get on track to get there?

Yes.

The region's cities and counties are starting to head in the right direction. Important changes have already begun. Planning and investment need to speed up to keep up, in a world that is changing faster every day.

This challenge can inspire leaders from across the region, as they implement the new plan they have created together. Their determination should inspire state and federal leaders as well: this work needs support.

With vision, and with commitment, Southern California can build a brighter future for all.

Introduction

A PLAN FOR TRANSFORMATION

In 2012, the Southern California Association of Governments (SCAG) adopted its first combined Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS) for a massive region spanning six counties: Los Angeles, Orange, Ventura, San Bernardino, Riverside and Imperial. To create this plan, leaders from hundreds of communities came together to map out a better way to grow.

Under state law SB 375, all the state's major regions must plan to reduce greenhouse gases by reducing driving, by planning for better land use and increasing transportation options. They must develop and adopt a Sustainable Community Strategy (SCS) as part of their federally required Regional Transportation Plan (RTP).

One key aim of the Southern California RTP/SCS is to reduce greenhouse-gas emissions from passenger vehicles from 2005 levels by 8% per capita by 2020, and by 13% per capita by 2035.

But the plan is about more than cars and carbon.

A Shared Vision

The 2012 RTP/SCS lays out a shared vision, from each of the region's cities and counties, to achieve transformative results: cleaner air, thousands of new jobs, less traffic gridlock, more housing and transportation choices, and a better quality of life for families of all incomes across Southern California.

These results flow from clear strategies: Invest in public transit. Build new jobs and homes around public transit and in existing communities. Meet the urgent need for homes that are affordable. Make streets safer for walking and biking. And protect the region's natural areas and farmland.

The strategies are simple and the benefits enormous. But that doesn't mean implementation is easy. To bring this shared vision to life, the leaders of the region's towns, cities, counties, and transportation agencies must all play their part—not just planning together, but taking action.

The Southern California region is vast: it spans 38,000 square miles, with 191 cities, six counties, and over 18 million residents. That's half the state's population. On its own, the region would be the country's 5th most populous state—or the world's 16th largest economy. The region is also home to two-thirds of the state's disadvantaged communities, where people need better access to services and opportunities. As Southern California's leaders act to reduce greenhouse gases by investing in public transit and walkable communities for people of all incomes, they offer a model for the nation and the world.

Taking Stock

ClimatePlan, together with the Safe Routes to School National Partnership, created this report to help decision-makers across the region assess how their efforts are adding up. ClimatePlan is a broad partnership of nonprofit organizations dedicated to improving land use and transportation planning in California, to protect our health, our communities, and our environment. The Safe Routes to School National Partnership advances safe walking and bicycling to improve the health and well-being of America's children and create more livable, sustainable communities.

We chose to focus on the Southern California region for this report, both because the region's plan and vision could be transformative, and because the region is home to half the state's population.

Now, four years since Southern California's first RTP/SCS was adopted, ClimatePlan and our partners are taking stock. We are asking:

How is the 2012 plan being implemented? Are key policies being adopted? Are funding priorities changing? How are decision-makers incorporating the RTP/SCS into new plans—and actions?

LOCAL AUTHORITY REQUIRES LOCAL ACTION

In evaluating progress, we considered who has authority. Although SCAG prepares the plan for the six-county area, it is largely up to county and city agencies, especially County Transportation Commissions, to implement it. SCAG has less authority, especially over funding, than the state's other metropolitan planning organizations. The 2012 RTP/SCS includes projects and policies that—if implemented—will meet the state's target to reduce greenhouse gas emissions. That implementation depends on many separate funding and planning decisions made by counties, cities, and county transportation agencies.

Realizing the plan's shared vision requires concerted action. That is why it is so important to take stock, to see whether these actions are adding up to meet the goals.

We recognize it takes time to finish this work: to erect new homes and build new transit lines, to fix sidewalks and create protected bike lanes, and to start addressing historic inequities across the region with investment in rural and low-income areas. But to arrive at the goal, you have to start moving in the right direction.

The region needs to know: Is Southern California on track?

Methods

MEASURING PROGRESS

The partners that ClimatePlan and the Safe Routes to School National Partnership worked with on this report include the American Lung Association in California; California Walks; Climate Resolve; Friends of Harbors, Beaches and Parks; Investing in Place; Move LA; the Natural Resources Defense Council (NRDC); the Prevention Institute; and TransForm.

To measure progress on Southern California's plan, we identified nine metrics: Greenhouse Gas Emissions, Public Transit, Transit-Oriented Development, Active Transportation, Affordable Housing, Land Conservation, Public Health, Equity, and Funding for Local Planning.

To select these metrics and identify the data to track them, ClimatePlan was assisted by transportation experts Fehr and Peers. We also consulted with state agencies such as the Strategic Growth Council and the California Department of Public Health, and over 25 leaders from nonprofit organizations throughout Southern California.

We reviewed the methods and the results of the report with staff and modelers from the Southern California Association of Governments (SCAG). SCAG is the regional metropolitan planning organization that created the Sustainable Communities Strategy, based on the plans of all the region's counties, cities, and towns. SCAG is guided by an 86-member Regional Council that includes Supervisors from all six counties, as well as elected representatives from cities and towns across 67 districts. Again, while SCAG convenes all these leaders and sets the targets, the ability to act—land use power and funding—rests largely with the region's County Transportation Commissions and local jurisdictions.

The data used is detailed in the endnotes. Sources include the 2012 RTP/SCS itself and SCAG documents; county transportation plans; regional, state, and federal data from many agencies; and data from non-governmental sources like the Center for Neighborhood Technology's All Transit database and the American Lung Association's State of the Air report.

We endeavored to use publicly available, regularly updated data so that this report could be adapted for use in other regions. Unfortunately, this publicly available data is not as thorough and up-to-date as might be desired.

Evaluating Progress

To evaluate progress, we asked two questions:

1. IS THE REGION MEETING THE GOALS LAID OUT IN THE PLAN?

That is, are the actions of cities, towns, counties, and their agencies adding up to get the region on track to meet its goals?

In some cases, the plan contains a general aim that is not measurable: in these cases, we suggested more specific goals and performance measures.

In several cases, data to measure performance has not yet become available since the 2012 plan's passage. In these cases, where possible, we used existing information to establish a baseline, to give at least a starting point for the region. In some cases, data is only available from shortly after the plan's passage, which just indicates initial momentum. Few long-term conclusions are possible, but again, the idea is to see if the region is starting out on track.


2. IS THIS ENOUGH TO MEET THE OVERALL NEED?

Will this meet overarching goals that the region and state have set—for example, the state's greenhouse gas reduction targets? If not, what is still needed to achieve the vision?

An aerial photograph of a city at dusk, with a green overlay on the left side. The city lights are visible in the background, and the foreground shows a hillside with some buildings and trees. The text is overlaid on the left side of the image.

Results: Is Southern California on Track?





“Fighting traffic morning and night is no way to live. In fact, it’s harming us and our children. There’s a better way forward, but it requires real action.”

Natural Resources Defense Council

Amanda Eaken, Director of Transportation and Climate

Greenhouse Gas Emissions

2 PERFORMANCE MEASURES

1. Greenhouse Gas Reductions in County Transportation Plans

GOAL

Reduce per-capita greenhouse gases from 2005 levels by 9% by 2020 and 16% by 2035 from personal vehicles, and reduce per-capita vehicle miles traveled.¹

PERFORMANCE MEASURE

Greenhouse gas reductions in county long-range transportation plans

STATUS

Some county transportation plans show their projects' impacts on the climate. All plans should show these, along with how they add up to meet regional and state greenhouse gas goals.

Why It Matters

An overarching goal of state law SB 375 and the Sustainable Communities Strategy is to reduce greenhouse gas emissions from transportation, the largest source of climate-changing carbon pollution, by improving land use and transportation options so people can drive less. Greenhouse gas emissions are one overall measure of success of this plan.

As required by SB 375, the Air Resources Board set a target for the Southern California region to reduce per-capita greenhouse gas emissions from cars by 8% below 2005 levels by 2020, and 13% by 2035; SCAG's own 2012 plan actually exceeds these targets, aiming for 9% by 2020 and 16% by 2035. To meet the region's goal, all six of the region's counties will need to reduce greenhouse gases by reducing driving.

In the Southern California region, planning is "bottom up," or locally led: though the goals are regional, their implementation is local. County Transportation Commissions decide which transportation projects to fund; SCAG then incorporates their plans into the RTP/SCS. Although SCAG has the responsibility for setting and meeting the region's greenhouse gas reduction targets, only County Transportation Commissions have the funding and authority to actually achieve the greenhouse gas reductions. This is why County Transportation Commissions should show the climate impacts of their decisions.

TABLE 1:
GREENHOUSE GAS EMISSIONS REDUCTION TRACKING BY COUNTY

COUNTY	UPDATED LONG-RANGE TRANSPORTATION PLAN?	REPORTED GHG EFFECTS?	ADDED UP NET GHG CHANGE?	COMPARED GHG CHANGE TO STATE GOALS?
Imperial	✓	—	—	—
Los Angeles	✓	✓	✓	—
Orange	✓	✓	—	—
San Bernardino	—	✓	✓	—
Ventura	✓	—	—	—
Riverside	—	—	—	—

Moving Forward

Though this is not yet required, county transportation plans could clearly account for and reduce greenhouse gases. This would make each county's contribution clear, and make the region much more effective at reducing greenhouse gases.

Los Angeles, Orange, and San Bernardino counties have begun the process. Specifically, the LA Metro 2014 Short-Range Transportation Plan, as well as the San Bernardino Associated Governments (SANBAG) 2014 Regional Greenhouse Gas Reduction Plan, and SANBAG countywide plan, predict greenhouse-gas reductions compared to business as usual. But they do not show how these reductions compare to regional and state goals. The Orange County Transportation Authority (OCTA) 2014 Long Range Transportation Plan notes potential greenhouse-gas emissions from different projects, but does not add these emissions up to give a total impact. Ventura's Comprehensive Transportation Plan does not quantify emissions. And though Riverside County has started public outreach that may result in a long-range transportation plan, it does not yet have one.

Although SCAG pulls together the region's transportation projects and helps them qualify for state and federal funding, ultimately, the funding and implementation decisions happen at the county level. All six counties have generally committed to reducing greenhouse gas emissions,

Greenhouse Gas Emissions (CONTINUED)

based on their Memoranda of Understanding, or joint work plans, with SCAG. County transportation plans should then reflect that commitment. SCAG can help counties to track and report greenhouse-gas emissions as part of their transportation planning.

County Transportation Commissions control an enormous amount of funding: \$500 billion over 35 years. These funds can go a long way to reduce greenhouse gas emissions as part of creating more transportation options.

All counties could benefit from long-range transportation plans that report both the projected greenhouse gas impacts of individual projects and of the whole plan, showing how they are helping to meet regional and state goals to fight climate change.

2. Vehicle Miles Traveled (VMT)

GOAL

Reduce per-capita greenhouse gases from 2005 levels by 9% by 2020 and 16% by 2035 from personal vehicles, and reduce per-capita vehicle miles traveled.²

PERFORMANCE MEASURE

Vehicle Miles Traveled (VMT)

STATUS

Direct greenhouse gas emissions data from driving were unavailable, but vehicle miles traveled (VMT) are a close proxy. As of 2013, Southern California has reduced per-capita daily VMT by 1% since 2011 and by 3.3% since the base year of 2005. The region as a whole is starting to move in the right direction, but must speed up reductions to meet the 2020 target.

Why It Matters

State law SB 375 aims to reduce carbon pollution by reducing the amount of driving people do, also known as vehicle miles traveled.

Southern California as a region has committed to reducing its per-capita greenhouse gas emissions by 9% from 2005 levels by 2020, just four years from now. The amount of driving people do in Southern California must drop quickly.

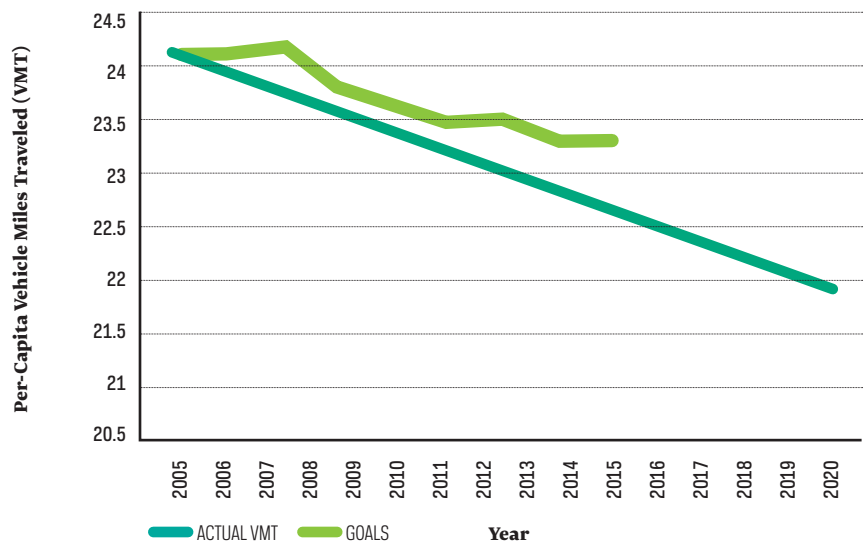
This is one of the most fundamental measures of achieving the goals of SB 375, which is a major part of California's effort to fight climate change, by creating communities that are less car-dependent and more sustainable.

Moving Forward

The region's per-capita daily VMT—the average amount of driving per person per day—has gone down by about 3% overall since 2005, which is the base year for the state's greenhouse gas reduction goals. The overall greenhouse gas reduction goal is 9% by 2020, so there is still more to do—per-capita VMT needs to drop faster—but this is an encouraging start.

Overall, Los Angeles County's per-capita VMT is the region's lowest. San Bernardino's and Imperial's are the highest. Imperial County's per-capita VMT has dropped by over 16% since the base year of 2005, and even as its population has grown significantly, Imperial's overall total VMT has also dropped.

FIGURE 1:
TOTAL SOUTHERN CALIFORNIA PER-CAPITA VEHICLE MILES TRAVELED (VMT):
ACTUAL VMT VS GOALS, 2005–2020



Sources: California Department of Transportation (VMT); California Department of Finance (population)

**TABLE 2:
DAILY TOTAL VMT BY COUNTY, 2005, 2011, AND 2013**

COUNTY	2005	2011	2013	2005-2013 PERCENT CHANGE	2011-2013 PERCENT CHANGE
Imperial	5,226,350	4,988,150	5,023,310	-3.9%	0.7%
Los Angeles	217,767,440	214,458,140	215,817,520	-0.9%	0.6%
Orange	71,568,910	74,110,230	73,804,690	3.1%	-0.4%
Riverside	51,947,870	55,717,760	54,909,110	5.7%	-1.5%
San Bernardino	57,808,710	58,909,470	60,519,310	4.7%	2.7%
Ventura	18,153,570	18,422,080	18,682,450	2.9%	1.4%
Total	422,472,850	426,605,830	428,756,390	1.5%	0.5%

Sources: California Department of Transportation (VMT); California Department of Finance (population)

**TABLE 3:
DAILY PER-CAPITA VMT BY COUNTY, 2005, 2011, AND 2013**

COUNTY	2005	2011	2013	2005-2013 PERCENT CHANGE	2011-2013 PERCENT CHANGE
Imperial	33.5	28.4	28.1	-16.4%	-1.2%
Los Angeles	22.2	21.8	21.6	-2.5%	-0.7%
Orange	24.2	24.5	23.9	-1.2%	-2.3%
Riverside	27.4	25.3	24.4	-11.1%	-3.5%
San Bernardino	30.1	28.8	29.2	-2.8%	1.6%
Ventura	22.8	22.3	22.3	-2.1%	0.3%
Total	24.1	23.5	23.3	-3.3%	-1.0%

Sources: California Department of Transportation (VMT); California Department of Finance (population);
VMT figures include all vehicle classes

Looking just at the time between 2011 and 2013, San Bernardino County’s per-capita VMT, already the highest in the region, actually increased. Ventura County’s increased as well. This is the opposite of what is needed; hopefully it does not indicate a long-term trend. All other counties showed reductions, with the largest in Riverside County.

It’s important to note the difference between per-capita and total VMT: the state has set per-capita goals, but total VMT determines climate impact, as well as air pollution and traffic delay. Though the region’s per-capita VMT is dropping, its population is increasing, and total VMT is slightly higher since the base year, up 1.5% since 2005. The state and the region factored in population growth by setting per-capita goals. But the total amount of driving matters. This is why changes in Los Angeles are important: with the region’s largest population, the county has the highest total VMT by far, over 215 million miles per day—that’s 40 times the VMT of Imperial County and four times that of San Bernardino County. Reducing Los Angeles’ big total, for example with its new rail lines, will help the region and the climate.

In the short term, a rising economy may mean more driving and higher VMT. Over time, however, this must change; traffic gridlock ultimately harms the economy and limits the region’s ability to grow. As the region invests in building a stronger public transit system, safer streets for walking and biking, and more jobs near bus stops and train stations, this will make Southern California’s economy more sustainable, and more resilient.

“Local governments are on the front lines of the climate challenge. Smart planning puts them on the front line of solving it.”

Climate Resolve
Jonathan Parfrey, Executive Director

Public Transit

3 PERFORMANCE MEASURES

1. Funding for Public Transit

GOAL

Funding allocated to public transit capital and operations³

PERFORMANCE MEASURE

Funding allocated to public transit capital (in FTIP, Federal Transportation Improvement Plan) and operations (from National Transit Database (NTD))

Why It Matters

To reduce greenhouse gas emissions from transportation, California must make it easy for people to drive less. That means investing in bus and rail options where people work and live, to make public transit more convenient, accessible, and affordable.

In Southern California, significant investment is needed to make the region's public transportation system work better for more people—at the same time that more new development, especially affordable homes, must be built around transit.

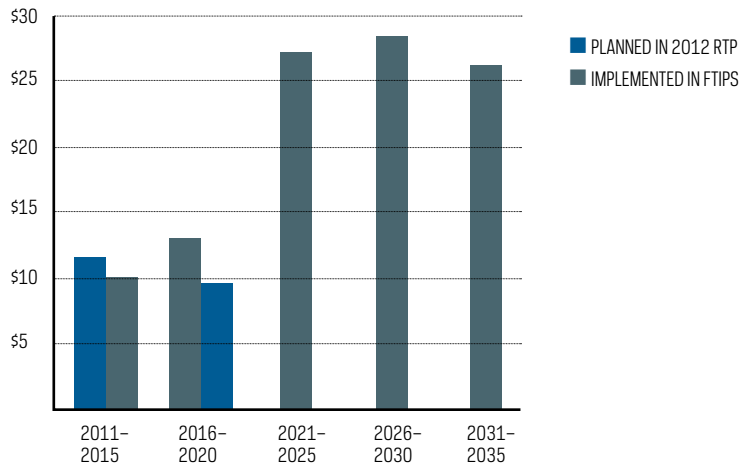
Investment in public transit will pay off with cleaner air, more convenience, and less time spent sitting in traffic. This investment will help the economy as well, by providing efficient, effective transportation for workers and for goods throughout the region.

TABLE 4:
TOTAL FTIP PROGRAMMED INVESTMENT DEDICATED TO PUBLIC TRANSIT (CAPITAL AND OPERATIONS) (BILLIONS)

YEAR	TOTAL FTIP PROGRAMMED INVESTMENT	FTIP AMOUNT DEDICATED TO TRANSIT	PERCENT OF FTIP DEDICATED TO TRANSIT
2011	\$31.8	\$9.4	30%
2013	\$32.5	\$12.6	39%
2015	\$31.4	\$12.2	38%

Sources: 2011, 2013, 2015 Federal Transportation Improvement Plans

FIGURE 2:
PLANNED (RTP/SCS) VS. PROGRAMMED (FTIP) FUNDING FOR PUBLIC TRANSIT (CAPITAL PROJECTS ONLY) (BILLIONS)



Sources: 2012 RTP/SCS; 2011, 2013, 2015 Federal Transportation Improvement Plans

✓ STATUS

For capital, or new public transit projects, the region is almost on track to meet its goals for 2011–2015. However, the gap widens for 2016–2020, falling almost \$4 billion short. Investments must continue increasing to keep up with the plan. New sales tax measures on the ballot in 2016 could help.

For operations and maintenance of existing transit projects, the region may actually exceed its goal for 2011–2015. The RTP/SCS planned for investment of \$14.9 billion in this period, but total operating expenditures in 2011, 2012, and 2013 already totaled \$13.8 billion, meaning the region is investing more than projected thus far.

Los Angeles County's investment is particularly significant. Its 2015 public transit spending is \$9.2 billion, and the region's total is \$12.2 billion: that's three of every four dollars the region invests in public transit.

**TABLE 5:
PROJECTED TRANSIT OPERATIONS AND MAINTENANCE IN 2012 RTP/SCS, AND ANNUAL SOUTHERN CALIFORNIA TRANSIT OPERATING EXPENSES (BILLIONS)**

YEARS	2012 RTP/SCS PROJECTED TRANSIT OPERATIONS AND MAINTENANCE SPENDING	YEAR	SOUTHERN CALIFORNIA TRANSIT OPERATING EXPENSES
		2011	\$4.8
		2012	\$4.5
		2013	\$4.5
2011–2015	\$14.9	Total	\$13.8
2016–2020	\$18.8		
2021–2025	\$23.8		
2026–2030	\$37.0		
2031–2035	\$44.8		

Sources: 2012 RTP/SCS, National Transit Database

Moving Forward

To create more transportation options and reduce greenhouse gases, the 2012 RTP/SCS estimated that almost half the region's transportation funding will go toward public transit. The region is close to being on track to meet this capital spending goal. Because the plan is "back-loaded," with higher spending put off until later (though some of this later planned spending includes High Speed Rail), investment will need to increase rapidly to keep up.

The higher than projected total regional spending on operations and maintenance is good news for riders and the region, and may result in part from higher-than-expected sales tax revenues in the economic recovery. Transit operation dollars are often hard to come by, and frequent transit service—which requires adequate operations spending—is critical to making transit a convenient choice for more people.

COUNTY INVESTMENTS VARY

Los Angeles County's impact here is huge (Table 6). With 10 million of the region's 18 million residents, half the region's total vehicle miles traveled, half the region's total transportation budget, and three-quarters of the region's total public transit spending, the county's investment in public transit could determine whether the region meets its greenhouse gas targets. Right now, Los Angeles County has five rail lines under construction and is in the midst of one of the nation's largest public transit expansions, powered by voter approval of 2008's Measure R sales tax. The bus system in Los Angeles County is the second largest in the nation, used by over 70% of transit riders with more than a million trips a day; while rail expands, the county must continue supporting and improving the bus system that so many people already depend on. A renewal of the sales tax, likely on the November 2016 ballot, could help.

As of 2015, Riverside County is spending very little (0.4%) of its transportation funds on public transit. The county's transit ridership has gone up slightly recently, indicating an area poised to gain from increased investment, and the City of Riverside is planning a new streetcar line. Residents would benefit from better connections from the eastern end of the county to valuable commuter services like Metrolink. Increased investment in rural areas could give people access to economic opportunity and to basic amenities such as school, food, and health services.

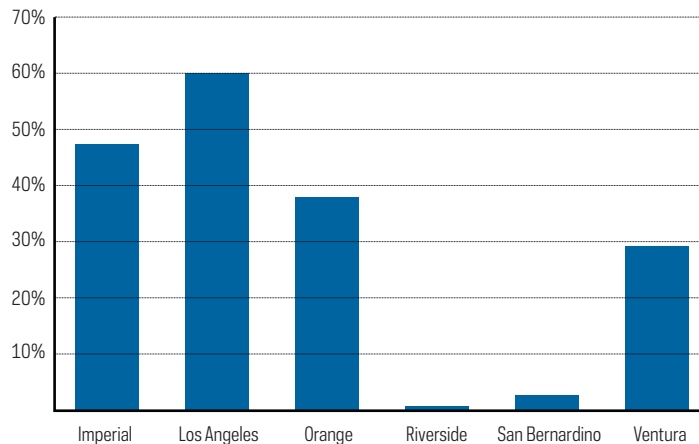
In contrast, Imperial County is spending 47% of its transportation budget on transit, doing its part to help the region meet its target, and to help its residents (particularly seniors, youth, and others who cannot drive) travel to jobs, health care, school, and other services. In fact, though its total transportation budget is less than one-fifth of Riverside's, Imperial is spending twice what Riverside is spending on public transit.

**TABLE 6:
TOTAL TRANSPORTATION INVESTMENT AND PUBLIC TRANSIT
INVESTMENT BY COUNTY, 2015 (FTIP) (MILLIONS)**

COUNTY	TOTAL TRANSPORTATION INVESTMENT	TOTAL PUBLIC TRANSIT INVESTMENT	PERCENT OF TRANSPORTATION INVESTMENT IN PUBLIC TRANSIT
Imperial	\$96	\$45	47%
Los Angeles	\$15,247	\$9,184	60%
Orange	\$6,874	\$2,610	38%
Riverside	\$5,690	\$25	0%
San Bernardino	\$3,081	\$93	3%
Ventura	\$686	\$200	29%

Source: 2015 Federal Transportation Improvement Plan

**FIGURE 3:
PUBLIC TRANSIT INVESTMENT AS A PERCENT OF TOTAL TRANSPORTATION FUNDS
(CAPITAL AND OPERATIONS) BY COUNTY, 2015**



Ventura County is also spending far more than what either San Bernardino or Riverside County is spending on transit, despite a much smaller total budget. As the county considers a sales tax for transportation, a significant portion should go to public transit, to bolster its options for residents.

San Bernardino has very low (3%) investment in transit, but new light rail to Redlands and a Metrolink line are coming. Last year, San Bernardino County started sbX, a new bus rapid transit (BRT) line, which could be useful to more people if it expands to low-income areas. San Bernardino is also contemplating a sales tax measure, which could boost its public transit investment. Orange County is investing significantly in public transit; it is introducing more BRT service along heavily traveled corridors, and the City of Santa Ana recently approved the construction of a streetcar.

STATE INVESTMENT NEEDED

State funding for public transit has been sharply reduced, even though several state laws—including AB 32, SB 375 and SB 535—depend on transit to relieve congestion, improve air quality, limit sprawl, and reduce VMT and greenhouse gas emissions. From 2007 to 2011, according to the California Transit Association, nearly \$5 billion in transit funding was used to address deficits in the state’s general fund, and federal transit funding also stagnated; since then, though the State Transit Assistance funding has been restored, it has been lower than projected. This has left regional and local jurisdictions with few resources to invest in transit, except from local sales taxes for transportation.

As the region’s population and jobs increase, especially in the Inland Empire, more sales taxes and other investments—local, state, and federal—will be required to support the region’s growing communities and local economies.



To Union Station

**“Los Angeles County is on the verge
of a transportation revolution.
We invite Ventura, San Bernardino,
Riverside, Orange, and Imperial
counties to join us!”**

Move LA

Denny Zane, Executive Director

2. Public Transit Ridership

GOAL

Increase the use of public transit.⁴

PERFORMANCE MEASURE

Ridership

STATUS

The region's annual per-capita ridership—the number of trips taken per person on public transit—is low. It is far higher in Los Angeles County than the rest of the region. Regionally, ridership fell in 2010, likely due to cuts and fare increases related to the recession, then had increased slightly by 2013. More recently, ridership in some counties, including Los Angeles, has dropped again, though complete regional data is not yet available.

Why It Matters

Investing in public transit is a critical step to succeed in building more sustainable communities, where people don't have to drive frequently or far. That reduces greenhouse gas emissions by taking cars off the road. Ridership is the most direct measure of whether that investment is working to help more people use public transit.

Public transit becomes more efficient as more people use it, unlike private cars, which create more traffic. As new residential and commercial development occurs near transit—especially as more affordable homes are built—ridership will increase. This will reduce the cost per rider for transit agencies and spur service improvements. As service improves and more destinations become accessible, more people will use transit, in a virtuous cycle that can help reorganize communities and travel patterns to be more sustainable.

TABLE 7:
TRANSIT RIDERSHIP: ANNUAL PER-CAPITA TRIPS BY COUNTY, 2008–2013

COUNTY	2008	2009	2010	2011	2012	2013
Imperial	3.1	3.5	3.6	3.9	3.7	3.8
Los Angeles	63.3	64.0	61.3	60.0	60.4	61.1
Orange	23.7	23.2	19.8	20.2	20.4	20.2
Riverside	5.4	5.8	5.5	5.7	6.2	6.4
San Bernardino	7.9	8.3	8.0	8.2	8.8	8.7
Ventura	6.4	6.7	6.5	6.4	6.6	6.7
Region Total	41.2	41.5	39.2	38.5	39.0	39.3

Sources: National Transit Database, California Department of Finance

Moving Forward

Public transit ridership in Southern California is low, and needs help to grow. The region is still recovering from severe budget cuts during the recession, when many agencies increased fares and cut service.⁵ Per-capita ridership has grown in the Inland Empire, Ventura, and Imperial counties; the amount is small compared to Los Angeles and Orange Counties, but the trend is in the right direction. New rail infrastructure, particularly in Los Angeles County, could be transformative. But as counties plan for new riders, current riders should not be neglected; good bus service and adequate operations and maintenance funding are critical.

Los Angeles County's ridership is far higher than any other county's; Orange County's, though much lower, is still well above the rest of the region. Much of Los Angeles County's rail is relatively new: its connectivity is improving, with development starting to follow, which should help ridership grow.

Recently, however, ridership has fallen in both Los Angeles and Orange counties, according to their transit agencies.^{6,7} Much of this is likely due to fare increases and service cuts; growth in jobs that are not well served by transit and a lack of affordable housing are also to blame.^{8,9,10} Ridership has grown slightly in Riverside County, according to the Riverside Transit Agency, which credits improved bus connectivity.¹¹

For the whole system to work, the region needs high-quality transit in areas with plenty of affordable homes. Fares must also be affordable, with service that is frequent and dependable. Bus stops and train stations must be easy to reach on foot and by bike. And good communication helps, so that residents from all backgrounds and multiple languages understand what services are available. Steady, significant, thoughtful support is needed—even temporary cuts take a long time to recover from. Transit ridership has plenty of room to grow, and when it does, the entire region's quality of life will improve.

3. Commuting via Public Transit

GOAL

Goal recommended: Increase commuting via public transit.

PERFORMANCE MEASURE

Taking transit to work

STATUS

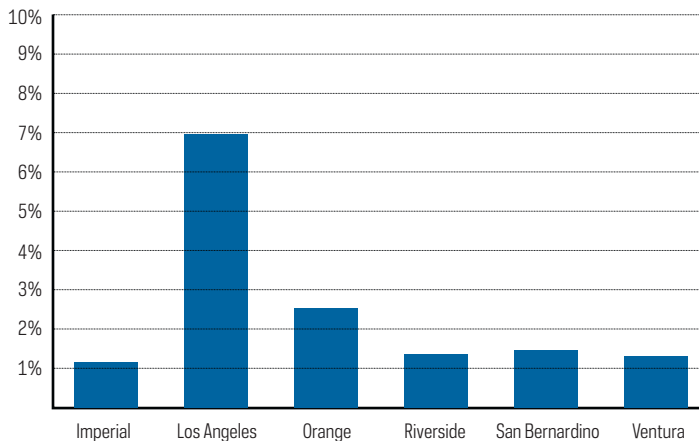
The percent of people taking transit to work in Southern California is low, and actually declined slightly from 5% in 2011 to 4.7% in 2013. As of 2013, Los Angeles had the highest rate at 7%, Orange County followed at 2%, and the rest of the counties hover just over 1%.

Why It Matters

Though commuting to work only accounts for 28% of the vehicle trips people take, the work trip is often the longest and arguably the most important.¹² It tends to be the trip that people plan their lives around, and about which they may have the least choice. It is also the highest-stakes trip, especially for low-income people: a broken car or a late bus can mean the loss of a job. Enabling more people to commute easily by public transit will have a significant impact on the region's traffic and on residents' quality of life.

Commute trips are also the easiest to track, and are included here in part because the data is readily available. The other vehicle trips people take are important; though usually shorter, they still add to vehicle miles traveled and greenhouse gas emissions, and should be counted. Commuting via transit can help move other trips out of cars as well, for example, if bus stops and train stations are surrounded by shops and services.

FIGURE 4:
PERCENT OF POPULATION TAKING TRANSIT TO WORK BY COUNTY, 2013



Sources: National Transit Database, California Department of Finance





“Sprawling development has made us so dependent on cars, it’s created a crisis for our environment and our health. There is a better way forward.”

TransForm

Stuart Cohen, Executive Director

Moving Forward

These numbers are low, in part because historically the region has not prioritized public transit. Significant new transit investments will come online soon and should help. Proximity—planning for homes to be near jobs, schools, and shops—is also key: if transit is less than a half-mile from your job and home, you are ten times as likely to use transit to commute.¹³ Many parts of the region either do not have jobs, transit, and homes close together, or do not yet have safe and convenient routes between them. The slight decline in transit commutes is also probably due to transit service cuts in recent years.

Los Angeles has far more transit-to-work trips than other counties, likely because it has far more jobs and homes close to transit. Los Angeles County also recently adopted a “first mile/last mile” strategic plan to help people easily and safely reach bus stops and train stations from home and work. The plan, whose next step is funding, is a model other counties can follow to help local workers get where they need to go safely.

AFFORDABLE HOMES NEAR TRANSIT

The region’s main commuter rail, Metrolink, connects Orange County and parts of the Inland Empire to downtown Los Angeles. To help boost ridership in the short term, the agency is reducing fares. In the longer term, transit-oriented development is needed around Metrolink stations; many are still surrounded by vacant or underutilized land. The region’s jobs-housing balance needs to be addressed as well; for example, people with low-wage jobs are getting priced out of the communities they serve and are unable to reach their jobs on transit. To maximize ridership, new homes near transit must be affordable to families with a range of incomes.

MORE OPTIONS FOR RURAL AREAS

Especially in rural and low-income areas, counties can work with community-based organizations and residents to come up with innovative transit solutions for commuting. Imperial County has a coordinated vanpool service based on a successful model used by farmworkers in the San Joaquin Valley. Dial-a-ride services can also help. Counties like Riverside, with rural areas, resort areas, and urban areas, must find different solutions for different needs. For example, buses in the eastern Coachella Valley only come every three hours; the stops are on the side of the highway, with no shelter from 100°-plus summer heat. The needs of many rural residents are not being met.

Transit programs, especially services like vanpools and dial-a-ride, are most effective when there is good community engagement to learn what people need, and help people understand what is available and how to use it. Agencies can work with low-income community members, who are most likely to use transit, to help decide transit priorities.¹⁴ Better transportation options can translate into more opportunities and a better quality of life.

Transit-Oriented Development

1 PERFORMANCE MEASURE

1. Homes and Jobs near Transit

GOAL

Build 51% of new housing and 53% of new jobs in High Quality Transit Areas (2008-2035).¹⁵

PERFORMANCE MEASURE

Percent of households and jobs added in High Quality Transit Areas

STATUS

Though current data is not available, in the four years before the plan passed, despite a loss of 50,000 jobs overall during the recession, the region actually also gained 32,000 jobs near current or future transit. This job growth occurred largely in Los Angeles County. This suggests that employment centers near current or future transit may be more successful at attracting and retaining jobs.

For housing, of the region's net increase of 37,500 homes in 2008–2012, about 30% were built near current or future high-quality transit. Again, this period was during the recession, and relatively few homes overall were built. But to meet the 51% goal, housing development near transit will need to accelerate.

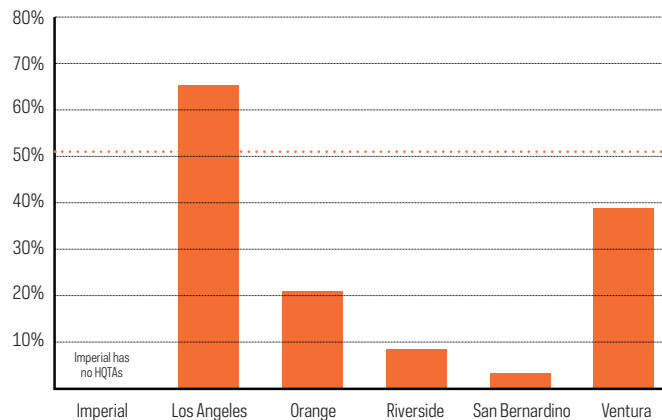
Why It Matters

Many of the region's goals—for reducing greenhouse gases, reducing traffic, and improving air quality and health—can only be realized by building new homes and jobs near transit, or in places where new transit can be added. The more convenient transit is, the more people use it, and the more people use it, the more service is improved and new development occurs around it.

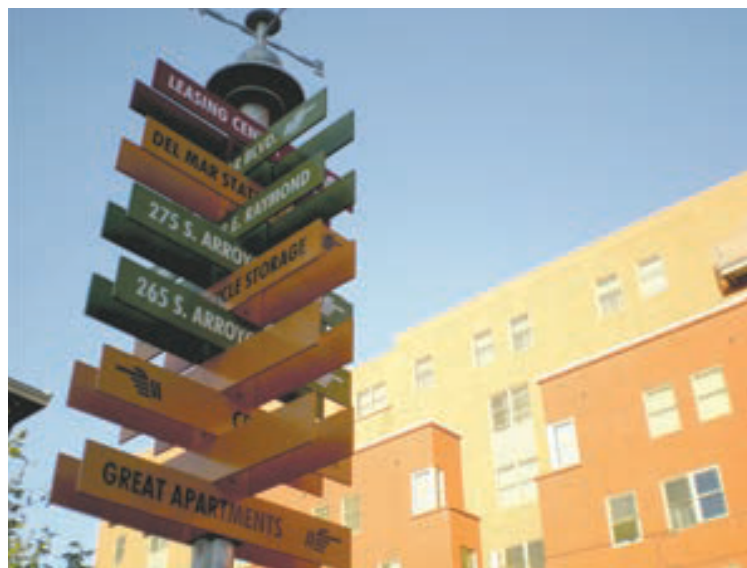
This transit should be high-quality—arriving at least every 15 minutes—and dependable. Building new jobs and homes near high-quality transit is fundamental to the success of the region's vision for healthier communities and more sustainable growth.

Even where high-quality transit is not available, particularly in rural communities, the concept—clustering homes close to one another and near services, including transportation services such as vanpools—is still valuable.

FIGURE 5:
PERCENT OF HOUSEHOLDS ADDED IN HIGH QUALITY TRANSIT AREAS (HQTAs) BY COUNTY, 2008–2012



Sources: Census Bureau; Center for Neighborhood Technology



Transit Oriented Development (CONTINUED)

Moving Forward

The 2008–2012 data is from before the RTP/SCS adoption, and was during a time of economic turmoil. As the region’s economy rebounds, continuing to focus employment and housing growth near transit will make it possible for more people to get to work in climate-friendly ways.

COUNTY GROWTH PATTERNS VARY

Some counties have focused growth near transit more than others. In part, this is because some counties have more High Quality Transit Areas (HQTAs) than others, but it also reflects local decisions. Los Angeles County has the most HQTAs, and built the most new homes, about two-thirds, within them. But although Orange County has the second-most HQTAs, only one out of five new homes were built there, whereas two out of every five new homes in Ventura County were built in its relatively few HQTAs. In Riverside and San Bernardino, very few homes (below 10%) were built in HQTAs. These two counties also have few HQTAs, but Ventura’s performance suggests that even with few HQTAs, it is possible to focus growth more around transit. Imperial County has no HQTAs—and none are projected for 2035. This highlights a real regional inequity.

A county comparison is not possible for jobs data because of the overall loss of jobs in this time period. The only county that did not experience a net loss of jobs was Los Angeles, which again has the most HQTAs.

Though some of the homes and jobs in 2035 HQTAs were built near transit that does not yet exist, future transit can still confer a benefit: transit-oriented development has a compact urban form, with proximity to jobs and services. The reverse is not true: if transit is built before the surrounding development, it won’t work, because no riders are nearby to use it. But the full benefits of this transit-oriented growth pattern—reducing air pollution and traffic, and saving households money—will not be realized until transit service begins.

OPPORTUNITIES TO CONNECT

Throughout the region, there are opportunities to help transit and development work better together. There are more jobs than homes located near high-quality transit, especially in Riverside, San Bernardino, and Ventura counties, but to have robust transit ridership, homes need to be built near transit as well.

First mile/last mile investments can help people reach transit easily and safely. Also, throughout the region, many homes and jobs are near transit that is not high quality; investing in service improvements for existing transit could reach many people.

BRIDGING THE GAPS

Moreover, at least one in five of the region’s households, according to data from the Center for Neighborhood Technology (CNT), have no access to transit, high-quality or otherwise. The situation is worst in Riverside County, where at least two in five households are not within a half-mile of any transit. In San Bernardino and Ventura counties, at least one in three households do not have access to any transit.

The absence of public transit is a major problem for youth, people with disabilities, and people who cannot afford a reliable car. This issue is growing, too, as more people grow older and cannot drive, and communities must find solutions.

Transit-oriented development is only one tool in the smart-growth toolbox. In rural areas especially, SCAG should consider different approaches to sustainable development. Infill development, even without or before transit, can still help reduce driving, support local businesses, and preserve farmland. Smart growth can also help rural communities stay rural, and prosper.



Active Transportation

3 PERFORMANCE MEASURES

1. Funding for Active Transportation (Walking and Biking)

GOAL

Devote 1% of transportation spending to active transportation, totaling \$6.7 billion.¹⁶

PERFORMANCE MEASURE

Funding allocated to active transportation

STATUS

The region's active transportation investments are meeting the overall 1% target now, though the first four-year interval was lower than planned. Most of the plan's spending is "back-loaded," postponed until its final years; to meet those projections, funding will need to increase steeply. The region shouldn't wait to program these funds: to meet 2020 goals for VMT and greenhouse gas reductions, near-term solutions are needed, and safe routes to transit and school will help.

Why It Matters

Walking and biking aren't just recreation; they are fundamental to the whole transportation system: they connect all the pieces, and make it all work. Bike lanes, sidewalks, and trails are cost-effective. They add transportation options and also leverage existing options by providing "first mile/last mile" transit access. This is sorely needed: the region can't boost transit ridership if riders can't easily and safely reach transit.

Safer streets are worth investing in for many reasons. Good walking and biking connections support public health and fight obesity, by helping people stay physically active in daily life. They help children get to school safely, and enable everyone, especially in low-income and rural areas, to get around with safety, dignity, and independence. They pay off economically as well, delivering higher revenues for local businesses, along with increased property values.¹⁷

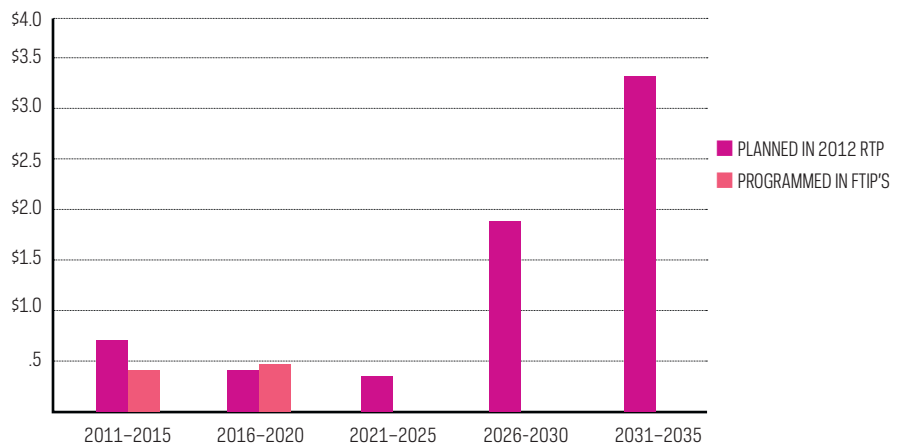
Walking and biking improvements are sometimes included in larger road projects, especially as more cities implement "complete streets" policies. This is a good step, but active transportation spending needs better tracking and reporting; for example, an entire highway project's cost could appear to be improving walking and biking, when only a tiny percentage actually is.

TABLE 8:
FTIP SPENDING DEDICATED TO ACTIVE TRANSPORTATION, 2011-2015 (MILLIONS)

YEAR	TOTAL FTIP SPENDING	TOTAL DEDICATED TO ACTIVE TRANSPORTATION	PERCENT DEDICATED TO ACTIVE TRANSPORTATION
2011	\$31.40	\$0.40	1.4%
2013	\$32.40	\$0.40	1.4%
2015	\$31.80	\$0.50	1.7%

Sources: 2011, 2013, 2015 Federal Transportation Improvement Plans

FIGURE 6:
PLANNED (RTP/SCS) VS PROGRAMMED (FTIP) FUNDING FOR ACTIVE TRANSPORTATION (BILLIONS)



Sources: SCAG, Census Bureau

**TABLE 9:
ACTIVE TRANSPORTATION FUNDING AND PERCENTAGE OF
TOTAL TRANSPORTATION SPENDING BY COUNTY, 2015**

COUNTY	ACTIVE TRANSPORTATION FUNDING BY COUNTY, 2015 (MILLIONS)	ACTIVE TRANSPORTATION PERCENTAGE OF TOTAL TRANSPORTATION SPENDING
Imperial	\$10	10%
Los Angeles	\$381	3%
Orange	\$37	1%
Riverside	\$83	1%
San Bernardino	\$18	1%
Ventura	\$19	3%

Source: 2015 Federal Transportation Improvement Plan

Moving Forward

Encouraging walking and biking is key to reaching California’s climate goals and creating a healthy region. The region is on track to meet its current goal of 1% of transportation funding for walking and biking. The 2012 RTP/SCS deferred much of the planned active transportation spending (Figure 5) to the plan’s later years, however, so funding will need to increase to stay on track.

The goal itself—1%—seems inadequate. By contrast, the 2012 RTP/SCS reports that, as of 2009, walking and biking made up 21% of all trips—far more than 1%.¹⁸ And of course all trips actually begin and end with walking. To assess the investment needed to make the region’s streets and sidewalks safe for people walking and biking, in 2011, the Los Angeles County Department of Public Health found that \$37–59 billion is needed, almost ten times the amount budgeted.¹⁹ Far more investment is needed from local, county, and regional sources.

COUNTIES TAKING STEPS

In Los Angeles County, the Long-Range Transportation Plan, now being updated, can support walking and biking by prioritizing funding for projects that demonstrate public health, social equity, and environmental benefits. The county has also created a “first mile/last mile” strategic plan to help people walk and bike to Metro stations; this plan is an excellent model, but needs funding, potentially from an upcoming transportation sales tax.

Other counties are making progress too: In Orange County, a “complete streets” guidebook and a countywide sidewalk inventory are under way. San Bernardino’s new countywide transportation plan includes complete streets information and a safe routes to school inventory. In Riverside County, a new Active Transportation agency network is starting up. There, a new walking and biking path called CV Link is also being planned, though to be most effective, it should link where most people actually live and where they need to go.

Funding is needed to bring these initiatives—complete streets, safe routes to school—to life. Counties can pass transportation sales taxes that include set-asides for active transportation. Residents of the Coachella Valley would benefit from first mile/last mile investments to reach public transit and fill in much-needed sidewalks. Missing sidewalks are a problem throughout rural areas, especially in the Inland Empire.



DO NOT
BLOCK
INTERSECTION

Hollywood

“Walking is the basic building block of the whole transportation system. Everyone benefits when we invest in safe, walkable streets.”

California Walks

Caro Jauregui, Southern California Policy Manager



2. Rates of Walking and Biking to Work

GOAL

Increase commute mode share of walking and bicycling to 3.1% and 1.7%, respectively, in 2020 and 6.3% and 3.9% in 2035²⁰

PERFORMANCE MEASURE

People walking and biking to work

STATUS

Between 2011 and 2013—the most recent data available—there was no change in Southern California's low rates of walking and biking to work; they stayed at about 2.4% (walking) and 0.8% (biking) of all work trips. Though most walk and bike trips are non-commute trips, commuting by foot and bike should increase with investment in safer streets.

Why It Matters

When people can commute to work on foot or by bike, they have an easy way to save money, get daily healthy activity, and reduce their greenhouse gas emissions. This will become possible for more Southern Californians as more new homes are built close to jobs, and as streets are made safer for walking and biking.

Increasing active transportation investment should result in more biking and walking for all trips, and less driving. Tracking this is challenging; even though most walking and biking trips are not to work, commute trips are used here as they are counted annually.

Moving Forward

Though they are only a fraction of walk and bike trips, commute trips act as a proxy for other trips; better direct measurement of those trips would help. These low numbers indicate a need to invest to make active transportation safer and more convenient.

Los Angeles County has the highest percentage (2.8%) of residents walking to work, and Orange County has the highest percentage (1%) of residents biking to work. This is likely a function of land use that puts homes close enough to jobs to walk and bike, and of course it varies by neighborhood. Especially in and around downtown, Los Angeles' more compact urban form, with jobs and housing close together and accessible to transit, supports pedestrian commutes. Orange County's transit agency has also encouraged bicycle commuting with its 2009 Commuter Bikeways Strategic Plan and development of a regional bikeways network.

Though infrequently updated, data on non-commute trips shows that many people are walking and biking already, even if they are not yet getting to work that way. According to SCAG, in 2012, 1% of the region's trips were made by bike and 13% by walking, and for trips under a mile, people biked for 2% and walked for 36% of these short trips—and almost half of all children who live within a mile of their school walk there.²¹

SCAG has launched new initiatives to promote walking and bicycling, including a toolbox and a series of open streets and pop-up urbanism events to showcase innovative ideas. This can help build capacity and support for making the investments needed to help more people walk and bike to work.



3. Walking and Biking Fatalities and Injuries

GOAL

Decrease bicyclist and pedestrian fatalities and increase transportation safety²²

PERFORMANCE MEASURE

Fatal and injury collisions involving people walking and biking

STATUS

The most recent data available (2013) shows that rates of pedestrian and bicycle fatalities in Southern California (35%) are slightly higher than statewide rates (32%). The 2012 RTP/SCS states that 21% of the region's traffic fatalities are pedestrians: in 2013, that number had increased to 29%. These percentages may be higher in part because more people are walking and biking. But they also show that people walking and biking are disproportionately likely to be killed. Walking and biking need to be made safer.

Why It Matters

The most healthy, sustainable forms of transportation should be the safest, but are still the most dangerous. It is possible to eliminate all road deaths—the goal of new Vision Zero efforts—by designing streets with safe spaces for people to walk and bike.

Moving Forward

These numbers show, in part, that driving has been made safer than walking or biking. The most healthy and sustainable modes of transportation should be the safest, but today they are still the most dangerous.

Los Angeles and Orange counties have the highest percentages of traffic deaths where the people killed were walking or biking; Imperial County has the lowest. This may indicate that more people are walking and biking in Los Angeles and Orange counties.

This also shows how necessary Vision Zero is, the goal to end all traffic deaths. The Los Angeles Department of Transportation's strategic plan and Mayoral Directive both aim to reach Vision Zero by 2025—nine years from now. Orange County recently released a Pedestrian Safety Action Plan and is developing a complete streets guidebook for the entire county. These are good models. Vision Zero policies should prioritize improving conditions for low-income people, who depend more on walking and biking for transportation, and whose streets are more likely to be unsafe.

TABLE 10:
PERCENT OF TRAFFIC FATALITIES INVOLVING PEOPLE WALKING AND BIKING, 2013

COUNTY	PERCENT OF TRAFFIC FATALITIES INVOLVING PEOPLE WALKING AND BIKING
Imperial	12%
Los Angeles	42%
Orange	37%
Riverside	26%
San Bernardino	27%
Ventura	28%

Source: SWITRS (Statewide Integrated Traffic Records Search)

MISSING SIDEWALKS

Many parts of the region, however, still lack bike lanes and even sidewalks. Many rural areas would benefit from community mobility plans to improve connectivity and safety. In Mecca in Riverside County, people living in a large mobile home park have to walk across open desert, a highway, and train tracks to reach the downtown or transit; the community won an active transportation grant to improve these conditions. More projects like this are needed to address the region's historic disinvestment in rural communities.

Creative solutions are possible. For example, throughout Los Angeles County, local organizations worked with low-income communities to create active transportation plans, then dealt with their lack of city planning staff by getting foundation funding to write successful grant proposals. Highway improvement projects can offer a different funding source and can include safe walking and biking upgrades. SCAG can help communities with these kinds of technical support.

MISSING DATA

Better data is direly needed. The state's data lags by years, does not correct the systematic under-reporting of pedestrian and bicycle injuries and deaths, and does not account for deaths that are caused by a collision but occur later. SCAG could help pull together the region's data more quickly: this data is locally generated and accessible. Counties could also invest more in collecting data, especially in unincorporated and rural areas, where many of these injuries go uncounted and unaddressed.


Cities and counties have committed to many encouraging plans and policies to make streets safe and inviting for walking and bicycling; funding and implementing them will save lives.



**“Though people walk or bike for 20%
of their trips in Southern California,
less than 2% of transportation funds
goes to bike lanes and sidewalks.
That gap costs lives.”**

Safe Routes to School National Partnership

Bill Sadler, Senior California Policy Manager



“If you compare wages to housing costs, Southern California has many of the nation’s least affordable communities. Those costs, plus long commutes, put terrible pressure on families.”

Housing California
Shamus Roller, Executive Director

Affordable Housing

2 PERFORMANCE MEASURES

1. Housing Elements

GOAL

Collaborate with local jurisdictions and agencies on a regional fair share housing allocation that reflects existing and future needs²³

PERFORMANCE MEASURE

Number of certified housing elements

STATUS

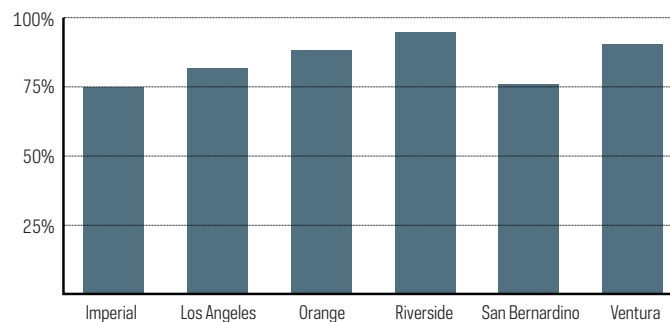
Regionally, as of August 2015, 83% of jurisdictions have certified a housing element, as required by state law.²⁴

Why It Matters

A decent, affordable home is important for everyone. The location of that home determines access to everything: jobs, schools, stores, health services. Housing is expensive in California, and has become far more so recently. If people cannot find affordable homes close to their jobs, companies have a harder time attracting qualified workers, and the strain of long commutes on the transportation system puts the entire region's prosperity at risk.

Housing elements are cities' plans to build enough homes—including affordable homes—for their growing populations over time. Using allocations based on regional growth projections, cities and counties must show how they will build their fair share of the housing that will be needed. Every four or eight years, these plans must be updated and certified by the state. They are an important and basic first step to meeting the need for homes that families can afford. Of course they must then be implemented to actually get homes built.

FIGURE 7:
PERCENT OF JURISDICTIONS WITH CERTIFIED HOUSING ELEMENTS BY COUNTY, 2015



Source: California Department of Housing and Community Development (HCD)

Moving Forward

Though most jurisdictions have updated their housing elements, almost one out of five jurisdictions still has not. Reasons may include city management challenges, lack of resources for planning, or opposition to affordable housing. Though some jurisdictions that are out of compliance are simply very small, there are others that are large, fast-growing, or have many local amenities—places where housing elements are especially important.

Riverside County is notable both because it is the only county out of compliance, and because its largest city, Riverside, is also out of compliance. Both the city and county of Riverside are growing fast; their lack of updated housing elements could signal a failure to plan well for that growth, and ensure that residents of all incomes share its benefits.

THE FIRST STEP

Because updating a housing element is a first step to the rezoning that speeds along affordable home construction, it is important for every jurisdiction to plan where homes can be built for families at every income level. Housing elements also give jurisdictions more access to state bond funds. They help support the local economy and attract new businesses by showing that homes will be available and affordable for workers. Jurisdictions can be also sued for failing to create and pass certified housing elements.

Housing elements—particularly those with strong strategies to protect existing affordable housing and tenants—can help address the displacement of low-income residents. This displacement is worsening now as demand for central, walkable living puts pressure on older neighborhoods. As housing prices continue to rise, it is vital that cities and towns plan for the affordable homes all their residents will need. Housing elements are just the first step.

2. Affordable Housing Built

GOAL

Goal recommended: Build enough affordable homes to meet the housing need of all income groups.²⁵

PERFORMANCE MEASURE

Number of affordable housing units built

STATUS

According to cities' and towns' reports, the region built only 13% of the affordable homes needed between 2006 and 2014. Only about half of the region's jurisdictions reported their construction.

This analysis compared construction against allocations only for the jurisdictions that reported, in only the years they reported. That is, the 19,000 homes reported built are compared against only the 144,000 needed in those reporting jurisdictions in those years, rather than the 279,000 total homes needed throughout the region for all years. This approach means the shortfall may actually be greater. Without a dramatic increase in affordable housing construction, the region will not meet its goals.

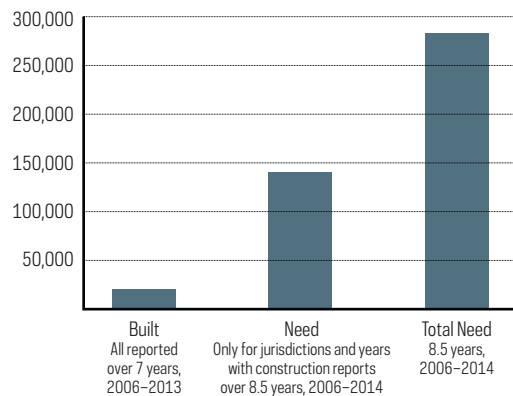
Why It Matters

One of the most important outcomes to measure is whether affordable homes are not just planned, but actually built.

When affordable homes are not available, everyone suffers: people “drive ‘til they qualify,” worsening traffic and delays for all. This is a fundamental equity issue: people at the lowest income levels are hardest hit, spending a greater share of their incomes on rent and on transportation to reach faraway jobs. It is also a climate issue, as this additional driving increases greenhouse gases. Affordable housing must be built, close to jobs and transit, for the region's plan to succeed.

Because current data is not yet available, this report compared the most recently available construction to that period's housing need.

FIGURE 8:
AFFORDABLE HOMES BUILT VS. PLANNED IN SOUTHERN CALIFORNIA (HOMES AFFORDABLE TO LOW-INCOME AND VERY-LOW-INCOME HOUSEHOLDS, FOR JURISDICTIONS AND YEARS WITH CONSTRUCTION REPORTS AVAILABLE)²⁶



Source: Annual Housing Element Progress Reports; 2012 RTP/SCS

Moving Forward

The need for affordable homes is acute in the Southern California region, and not nearly enough affordable homes are being built. The reports are incomplete, with only about half of all jurisdictions reporting construction, only in certain years. This means the number built may be actually even less than 13% of what is needed, as the total need was 279,000 homes and only 19,000 were reported built.

The region's housing allocation for the next period (2014–2021) is lower, but still roughly ten times the amount reported built from 2006 to 2013.²⁷ Unless more affordable homes are built, more quickly, the gap is only likely to grow.

STATE FUNDING NEEDED

More state and federal funding is required, especially since many incentive programs for building affordable housing have been eliminated or downsized. The new Affordable Housing and Sustainable Communities grant program is a good start, but that program's budget is only a fraction of the total needed. More targeted programs are needed, especially for communities with very low incomes and in rural areas. This is a statewide problem, and requires state action to help get thousands more needed homes built.²⁸

Clearly, housing elements are not enough. Local jurisdictions can benefit from new statewide legislation, which lowers barriers to the construction of affordable housing by changing what is considered an impact under CEQA. These advances require local implementation through local policy change.


LOCAL ACTION NEEDED

Though they need support from the state, cities and towns must act. For example, they can rezone to allow more homes along transit corridors (especially away from hot spots for luxury development), lower parking requirements and “unbundle” parking to make homes cheaper to build, encourage in-law units, and use effective inclusionary ordinances to build affordable homes with every new development.

Cities and towns can be sued for failing to implement their housing elements; for example, the Bay Area city of Pleasanton lost a costly suit. Also, if cities and towns fail to rezone enough sites to accommodate their housing need, under state law SB 375, they can only refuse affordable housing developments under very limited conditions.²⁹

Better data is also needed to track affordable housing development. Many cities and towns do not report their affordable housing creation; the state can simplify reporting to get more accurate numbers. Also, SCAG could gather and share additional data from building permits and low-income housing tax credits, to help track the region’s progress and help improve it.



An aerial photograph showing a coastal city with a dense urban area and a beach, surrounded by rugged, green mountains. The ocean is visible on the right side of the image.

**“Southern California’s natural
lands are at risk as the region
grows. Fortunately, planning
for conservation has begun:
now it’s time to act.”**

Friends of Harbors, Beaches and Parks

Melanie Schlotterbeck, Outreach Coordinator

Conservation

2 PERFORMANCE MEASURES

1. Regional Conservation Planning

GOAL

Identify and map regional priority conservation areas, engage with partners, and develop an implementable plan.³⁰

PERFORMANCE MEASURE

Strategic planning done for regional priority conservation areas

STATUS

The region has allocated funding for planning, and mapped regional priority conservation areas. However, the region's actual conservation plan has not yet been developed.



Why It Matters

One of the biggest benefits of compact development patterns—focusing new growth close to jobs and transit—is the preservation of Southern California's unique wildlands and productive farmland.

Southern California is one of 20 global hotspots of biodiversity, but the region's unique plants and animals are threatened with extinction due to development. Understanding the baseline conditions is critical to creating an effective conservation plan for the future.

Land conservation is not just a matter of keeping natural lands undeveloped: it is important to take stock of these lands to identify priority areas for conservation, and plan and fund protection.

Moving Forward

SCAG has made a good start on this effort by identifying priority conservation areas and gathering input from regional stakeholders. SCAG has produced open space maps and a report on open space methodology and guidelines. SCAG requested input during this process, including hosting several Open Space Working Group meetings. Now SCAG can develop and implement an open space mitigation plan to ensure these open space and natural habitats are actually protected.

Orange County's Renewed Measure M, a local sales tax, has provided a good model for SCAG's own conservation policies. Renewed Measure M includes a habitat mitigation program that pools both project impacts and funds, then requires large-scale mitigation from the impacts of transportation projects.

Riverside's Multiple Species Habitat Conservation Plan (MSHCP) is also an impressive model: it protects over 140 species and preserves a half-million acres of habitat. Implementing plans like these can do much to save Southern California's rare plants and animals.

The more that local governments, and the region as a whole, make strategic decisions about where growth should occur and what landscapes most need to be protected, the more they can support the region's quality of life.

2. Rates of Land Development

GOAL

Identify and address open space resources, including increasing and preserving park space.³¹

PERFORMANCE MEASURE

Acres of land developed

STATUS

From 2002 to 2012 (the most recent data available), the average rate of open space development was 12,700 acres per year. The 2012 plan projected a much lower rate, 9,300 acres developed per year—a drop of 37%.

Though a steep drop is required to meet the goal, land development rates peaked in 2004–2006 and fell until 2012. If this trend holds, the region may well achieve or surpass its goal.

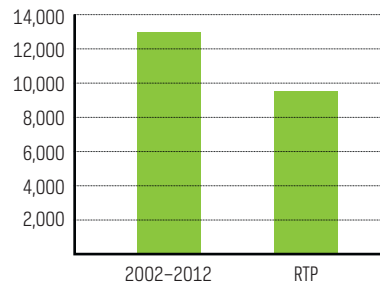
Why It Matters

To make conservation decisions with limited resources, the region needs good information. SCAG has gathered together maps and data to make this information easy to find, and can now begin developing and pilot-testing region-wide conservation strategies.

One key piece of data is the rate of land development, or urbanization. This helps show whether the region's planned shift to more compact development is actually occurring, and is slowing the loss of wildlands and farmlands.

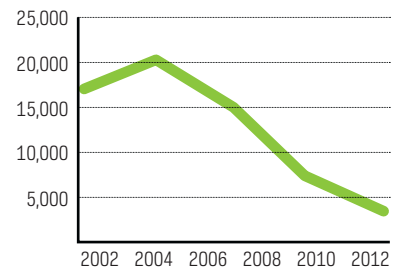
Because no current data is yet available, this report compared the historic rate to the rate that the region must achieve going forward, to provide a sense of the change needed.

FIGURE 9:
AVERAGE ACRES URBANIZED PER YEAR
IN THE SOUTHERN CALIFORNIA REGION:
HISTORICAL VS. PROJECTED



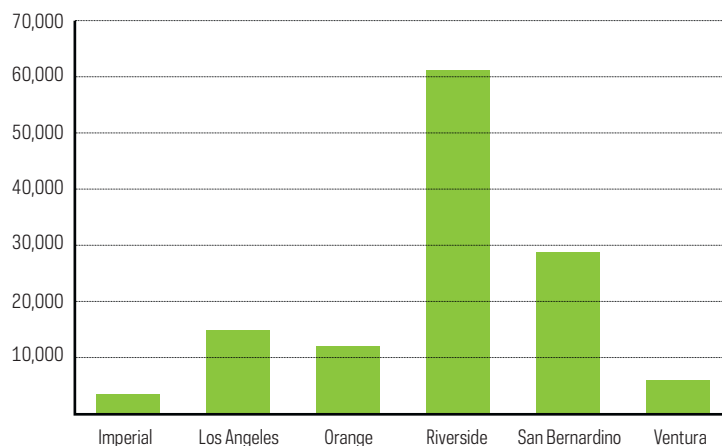
Sources: 2012 RTP/SCS; California Department of Conservation

FIGURE 10:
AVERAGE ACRES URBANIZED PER YEAR
IN THE SOUTHERN CALIFORNIA REGION:
HISTORICAL VS. PROJECTED



Source: California Department of Conservation

FIGURE 11:
ACRES URBANIZED IN SOUTHERN CALIFORNIA BY COUNTY, 2002-2012



Source: California Department of Conservation



Moving Forward

The 2012 RTP/SCS planned for a large shift in land development patterns. Increased consumer demand for walkable communities, and other changes in the housing market, may have brought land development rates down enough to achieve this goal and conserve important landscapes. Maintaining this trend even as gas prices fall will be a challenge, but will be crucial for the region to preserve its unique landscapes. Frequent reporting of this data can help local leaders know whether the region is on track.

Counties vary significantly in their rates of land development; Riverside County was responsible for almost half of the region's total urbanization between 2002 and 2012, 63,000 out of the region's total 127,000 acres developed; its urbanized area expanded by 24% in this time. San Bernardino's urbanization over that period was second-highest, about 29,000 acres. These expansions made these counties' urbanized areas the largest in the region, surpassing Orange County's in size. All counties had reduced their rates of land development by 2012. New data will show whether this trend is lasting.

Public Health

4 PERFORMANCE MEASURES

1. Collaboration with Public Health Professionals

GOAL

Collaborate with the region's public health professionals to address public health in data collection, planning, program, and project development.³²

PERFORMANCE MEASURE

Collaboration with public health professionals

STATUS

SCAG created a Public Health Subcommittee in 2012, which met several times, then started a Public Health Workgroup in 2014, open to agency staff, elected officials, and the public, which meets quarterly to promote public health in the 2016 RTP/SCS. SCAG staff also engage health partners in the community, participating in data and healthy transportation working groups.

Why It Matters

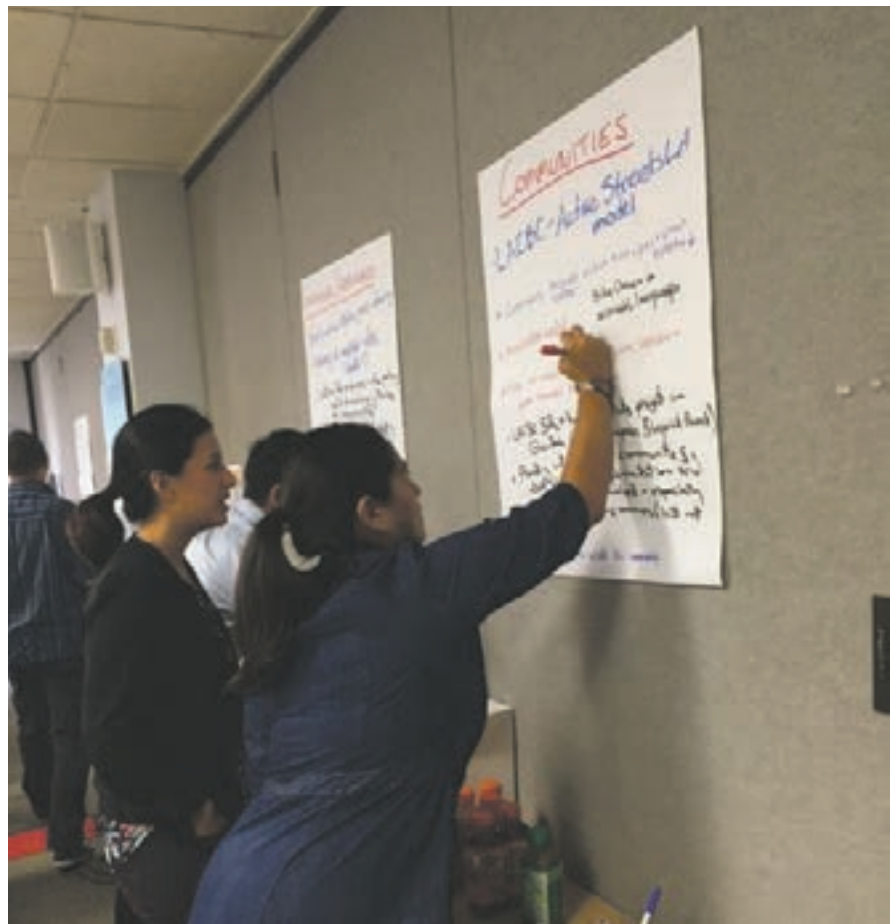
To reverse the steady increases in rates of obesity and chronic disease, research shows that our environments must support healthy behaviors. Climate-friendly development brings significant health benefits: reducing driving reduces air pollution, and increasing walking and biking for transportation makes physical activity a part of daily life.

Getting public health professionals involved in the planning process helps the region achieve its climate goals while also maximizing health benefits for Southern California residents. As with other planning, this engagement is just a first step: clear goals, implementation, and tracking all must follow.

Moving Forward

SCAG has provided a number of opportunities for public health advocates to engage in RTP/SCS planning; this is a very positive step.

The next steps will be to track and implement the goals recommended by the Public Health Working Group for the 2016 RTP/SCS, to help people lead healthier lives across Southern California. These goals are largely around collaboration and incorporating health considerations into planning. One is for SCAG to collaborate with County Transportation Commissions to integrate public-health-related analysis and planning projects into the Joint Work Programs. If SCAG develops its capacity for health-oriented planning, and provides this to the CTCs to inform funding decisions, this could be a great benefit to the region.



“What’s good for the environment is also good for health. Achieving goals of equity, greenhouse gas reduction, open space and active transportation provides substantial health benefits.”

Public Health Alliance of Southern California

Tracy Delaney, Ph.D., R.D., Executive Director

2. Rates of Physical Activity

GOAL

Goal recommended: Increase transportation-related physical activity.

PERFORMANCE MEASURE

Percent of adults who walked 150 minutes or more in the previous week, either for transportation or leisure

STATUS

As of 2011–2012, the most recent data available, only one in three residents of the Southern California region got moderate physical activity by walking an average of 150 minutes a week, or 30 minutes a weekday. Counties varied: Los Angeles was highest with 35%; San Bernardino was lowest with 28%. The region’s average is the same as statewide rates (33%), but it is far too low to keep people healthy.

Why It Matters

The layout of streets, neighborhoods, and cities determines whether and how much people can walk and bike. The 2012 RTP/SCS included greater investment in public transit, safe streets for active transportation, and design that puts destinations close together; this all helps residents increase their daily physical activity. Recently, the Surgeon General issued a call to action to make communities more walkable, to encourage physical activity and fight obesity.³³

TABLE 11:
**PERCENT OF ADULTS WALKING 150 MINUTES PER WEEK,
BY COUNTY, 2011–2012
(WALKING MAY BE FOR TRANSPORTATION OR LEISURE)**

COUNTY	PERCENT OF POPULATION
Imperial	31%
Los Angeles	35%
Orange	34%
Riverside	30%
San Bernardino	28%
Ventura	31%

Source: California Health Interview Survey (CHIS)

Moving Forward

The 2012 RTP/SCS goal to improve conditions for walking and biking has the potential to increase physical activity and improve health. With only one in three of the region’s residents walking 20 to 30 minutes a day, the region has a way to go. As more active transportation projects are developed throughout the region, physical activity should be tracked consistently as a performance measure.

As of 2011–12, Los Angeles, and Orange counties had slightly higher rates of residents getting about 30 minutes of walking per day. These counties may have more of the region’s most walkable city layouts, with shorter distances between destinations and streets with sidewalks and crosswalks.

San Bernardino County residents had the region’s lowest levels of daily walking; Riverside and Imperial also have lower levels. This may indicate fewer destinations that can be reached by walking, and lower investments in safe streets.

In low-income and rural areas throughout the region, higher rates of walking may actually indicate few options: conditions may be dangerous, but people may still have to walk long distances to buses, shopping, and schools. In these places especially it is critical to act, and invest, to make walking and biking routes safe.

People need safe streets, and destinations within walking distance. All counties can support urban design that puts destinations closer together, while making streets safer and more comfortable, with sidewalks, safe crossings, trails, safe bike lanes, benches, and shade. These changes will enable more people to be physically active as part of daily life.

3. Air Quality: Ozone Pollution (Smog)

GOAL

Improve air quality.³⁴

PERFORMANCE MEASURE

Number of high ozone days per year

STATUS

Between 2010 and 2013, there was a slight improvement in high-ozone days in the Southern California region. Smog is still a serious problem: San Bernardino County, Riverside County, and the City of Los Angeles have the highest ozone levels in the country.

Over a longer time scale, the region's air quality has improved significantly through diesel emissions reductions: this shows what is possible. As the region works together to reduce driving, it will improve its air and the health of its residents.

TABLE 12:
AVERAGE ANNUAL NUMBER OF
HIGH OZONE DAYS BY COUNTY

COUNTY	2010-2012	2011-2013
Imperial	16	16
Los Angeles	78	77
Orange	4	3
Riverside	104	97
San Bernardino	122	118
Ventura	12	9

Source: American Lung Association

Why It Matters

The 2012 RTP/SCS projected an impressive reduction in pollution-caused respiratory problems: a drop of 24%—roughly one quarter—with \$1.5 billion per year in health care savings.

Smog, caused by high ozone, puts Southern California residents at risk for premature death, aggravated asthma, difficulty breathing, cardiovascular harm, and low birth weight. It is largely caused by transportation, that is, tailpipe emissions. It is a key metric for air quality that should improve as the plan is implemented and the amount of driving goes down.

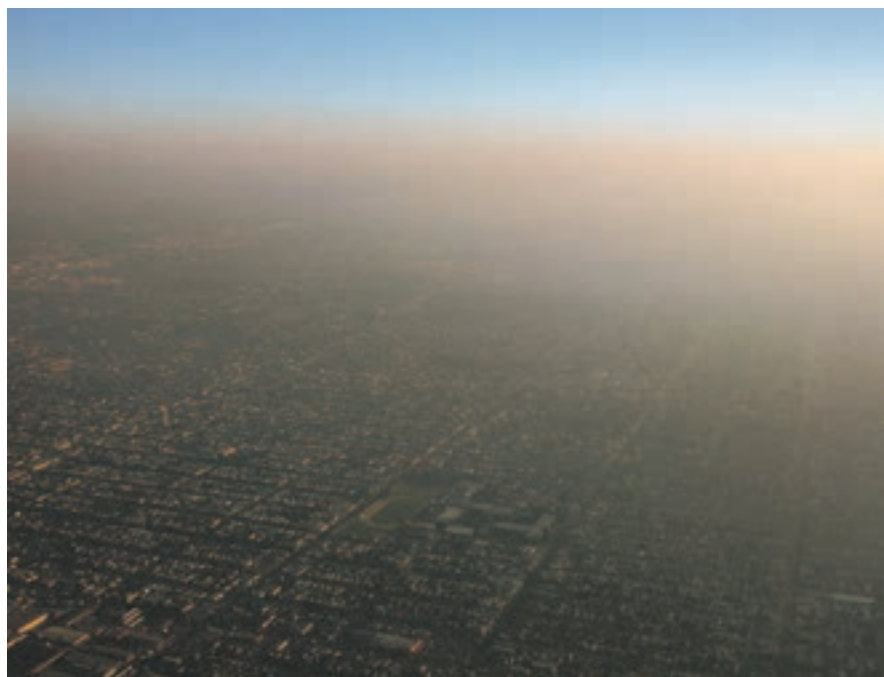
Moving Forward

High ozone days are far too frequent; they impose a heavy burden on the region's residents. Ninety percent of the region's ozone is caused by tailpipe emissions.³⁵ Reducing driving and vehicle miles traveled is critical to protecting the health of children, seniors, and all Southern California residents.

San Bernardino and Riverside have the region's—and nation's—worst ozone pollution, with Los Angeles not far behind: once or twice a week on average, these counties' residents are burdened with pollution that causes breathing problems, increases emergency room visits and sick days, and for sensitive individuals like kids with asthma or seniors, can be fatal. Shifting transportation investments away from polluting roads and highways, and toward cleaner transportation, will help.

Over the longer term, the region has made significant improvements in air quality, both reducing cancer-causing toxins (from diesel emissions) and reducing ozone and the smog it causes.^{36,37} Today, the region's mountains are visible much more frequently than they once were. Southern California's struggles with polluted air are exacerbated by its weather and a changing climate: ozone is formed in warm, sunny conditions, which are becoming more common. The region's improvements, especially set against these challenging conditions, are a real achievement.

Southern California has already made its air cleaner and clearer—but it can and must do more. Lives depend on it.



4. Air Quality: Particle Pollution

GOAL

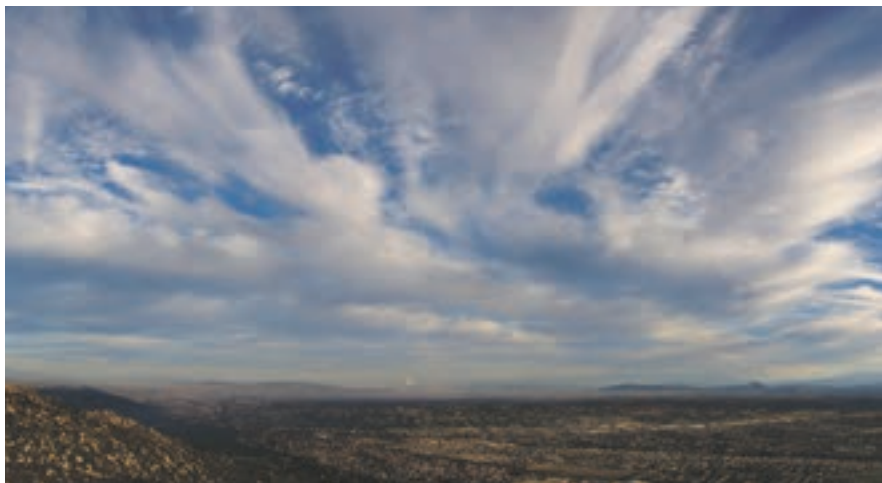
Improve air quality.³⁸

PERFORMANCE MEASURE

Particle pollution

STATUS

There is not yet a clear trend since the adoption of the 2012 RTP/SCS in either short or long-term particle pollution. It remains a serious problem for the region, with the worst pollution in Riverside and Los Angeles counties. Riverside County is the fourth highest county in the nation for both short-term and year-round particle pollution.



Why It Matters

Particle air pollution, also called particulate pollution, is extremely harmful. These particles, which in Southern California come largely from vehicle exhaust, are less than 2.5 micrometers in size, so small they penetrate the lungs and enter the bloodstream.³⁹ Living in an area with high particle pollution—for example near freeways or arterial streets—increases the risk of heart disease, lung cancer, and asthma.

TABLE 13:
PARTICLE POLLUTION: SHORT-TERM AND YEAR-ROUND PM2.5, 2010–2013,
AND STATE OF THE AIR REPORT GRADES

COUNTY	Short-term Particle Pollution (Weighted average of days/year)		Year-round Particle Pollution (Annual “design value,” or calculated pollutant concentration)		State of the Air Report Grade
	2010–2012	2011–2013	2010–2012	2011–2013	2014, 2015 ⁴⁰
Imperial	2.7	2.3	13.6	14.3	D
Los Angeles	25.2	26.8	13.1	13.0	F
Orange	4.7	5.7	10.8	10.7	F
Riverside	31.8	33.5	15.6	15.1	F
San Bernardino	2.8	2.8	12.9	12.6	D
Ventura	0.3	0.3	8.9	9.1	B

Sources: American Lung Association. The 2014 “State of the Air” report uses 2010–2012 data; the 2015 report uses 2011–2013 data.

Moving Forward

To reduce particle pollution, the region must reduce driving and tailpipe emissions. Short-term particulate exposure can be immediately deadly. Long-term particulate exposure is particularly bad for children, though it makes people of all ages ill and shortens life expectancy by years. It takes a toll on the entire community by increasing rates of school absenteeism, emergency room visits, and hospital admissions.

Riverside and Los Angeles counties have the region’s highest levels of particle pollution, and Riverside County’s levels are some of the highest in the country. Public transit investment and land-use planning that encourages development near public transit, instead of near high-traffic roads, will help to improve air quality and health.

The good news is that cleaning the air by removing particle pollution can have almost immediate health benefits, and has been shown to lengthen life expectancy.⁴¹ As with ozone, though little change has occurred in particle pollution levels since 2011, the longer-term trends show improvement. The American Lung Association’s most recent State of the Air Report found that particle pollution in the City of Los Angeles was the lowest in decades. Though there is still a long way to go, this shows progress is possible to help all the region’s residents breathe more freely.

Equity

2 PERFORMANCE MEASURES

1. Work with Community Leaders

GOAL

Work with local jurisdictions and community stakeholders to address possible gentrification effects of new development.⁴²

PERFORMANCE MEASURE

Collaboration with local jurisdictions and community stakeholders

STATUS

It is not clear how SCAG is collaborating with jurisdictions and stakeholders to address gentrification.



Why It Matters

New development and investment should reduce the region's inequities, not exacerbate them. Offering more low-cost transportation options should make opportunities more accessible to all residents, regardless of income or race. But as new development occurs, especially near transit lines, there must be support to prevent existing communities from being pushed out.

Gentrification and displacement are not only bad for communities, they are bad for the climate. Transit riders are pushed to areas where they must drive, while higher-income people move close to transit but often continue to drive. In addition, the loss of neighborhood-serving retail and services makes residents drive more for daily errands.

Preventing gentrification and displacement requires listening to and working closely with local communities. Local residents are the first to see the signs of gentrification, and they are the ones who experience displacement. They can help identify where and how new investment is needed, around transit or other community amenities. Without this help, decision-makers may not recognize the warning signs until gentrification is well on its way.

Moving Forward

Cities and counties need strategies to ensure that residents share in the benefits of new investment in their neighborhoods. Urban areas in Los Angeles and Orange counties especially are already struggling with gentrification; it will become more of an issue throughout the region as development continues.

Decision-makers must seek to understand and address the impacts of new growth on low-income communities, or displacement will push people further into the unincorporated eastern ends of the region. Investing in existing rural communities and small towns will allow whatever growth pressure does get displaced there to bring benefits to, rather than drain investment away from, existing neighborhoods.

SCAG can help. SCAG can convene local leaders and stakeholders to identify threats and share solutions, and can work with key state agencies to help implement those solutions. SCAG can do research and analysis to help communities see whether they are at risk of gentrification and displacement. SCAG can also help communities identify projects and investments to mitigate negative environmental impacts. Regional and local planning should minimize gentrification and displacement in high-quality transit areas.

A new resource from the Center for Community Innovation at UC Berkeley offers an "early warning system" to identify communities that are facing these threats; it also shares lessons learned and possible solutions.⁴³ This can help inform future planning and may be a model for additional resources SCAG could provide. The Air Resources Board funded some of this research, and the state can help with other technical or material assistance.



“Low-income rural communities and regions have been left behind for too long; it’s time for these communities to share in the benefits of growth and investment.”

Leadership Counsel for Justice and Accountability

Veronica Garibay, Co-Founder and Co-Director

A photograph of a woman and two children on a beach. The woman, wearing a pink halter-neck top and black leggings, stands in the center, looking down at a yellow surfboard on the sand. To her left, a young boy in an orange shirt and patterned shorts looks on. To her right, a young girl in an orange bikini stands with her back to the camera, looking out at the ocean. The background shows waves breaking on the shore under a clear sky.

“SB 375 presents a tremendous opportunity for the SCAG region to align investments based on need and protecting our environment for all.”

Investing in Place

Jessica Meaney, Managing Director



2. Assess Impacts on Low-Income Communities

GOAL

Assess disproportionate impacts of development on low-income communities.

PERFORMANCE MEASURE

Analysis of environmental justice performance indicators

STATUS

SCAG has identified several environmental justice measures, but given the region's size and diversity, a finer-grained approach is necessary for a more accurate picture of how the region is doing, and whether policies are placing disproportionate burdens on low-income communities of color. Counties, cities, and towns must use mitigation strategies to make sure residents of these communities are helped, not harmed, by new development.

Why It Matters

New development can address and reduce inequity, or it can make it worse. To assess these potential impacts, an environmental justice analysis is required as part of the RTP/SCS. The 2012 plan looks at displacement and gentrification, regional jobs-housing balance, access to parks, and environmental impacts along freeways and high-volume roads.

As the region shifts more investment to public transit, this should bring benefits to disadvantaged communities, offering more transportation options and more access to jobs and services. It should also help clean up the air. But as more investment goes into transit, gentrification and displacement are a risk. And throughout the region, continued investment in widening roads and freeways puts greater environmental burdens on surrounding communities. Good data on all of this is critical to start addressing injustices that are decades in the making.

Regional planning should analyze the impacts of the development it envisions, minimize and mitigate negative impacts, and maximize access, affordability, and health for the region's disadvantaged communities. This should build upon efforts by County Transportation Commissions and local governments to promote environmental justice.

Moving Forward

The 2012 RTP/SCS includes several environmental justice measures to analyze how planned development impacts low-income communities, and lists mitigation strategies jurisdictions can use to lessen these impacts. The analysis could be improved, however: it should include a fine-grained geographic analysis that highlights low-income communities and ethnic groups, and distinguishes between urban, small urban, and rural areas. It should also include countywide analyses to inform funding decisions by County Transportation Commissions.

SCAG's adoption of Communities of Concern will help analyze these impacts. Using a model from the Bay Area, this defines specific geographic areas with high concentrations of low-income people. Using this indicator will help track—and reduce—disparities between these communities and the region as a whole.

SET SPECIFIC GOALS

These analyses should set specific goals rather than calling for “improvement over baseline.” They should include a health equity analysis, addressing air pollution and infrastructure for safe physical activity, and address walking access to schools, parks, and services. More careful analysis of indicators of gentrification and displacement is needed, as is a separate rural analysis. As under-served communities are often most vulnerable to climate change, climate adaptation needs should be analyzed, and climate resiliency strategies created.

Environmental justice analyses should be part of county transportation plans. This will help to improve transportation planning; for example, Los Angeles County's 2008 Measure R, which is a model for its transformative investment in public transit, also included projects with negative impacts, such as highway expansions in Long Beach along the 710 corridor, increasing pollution burdens for already at-risk communities. SCAG could help County Transportation Commissions identify and evaluate possible projects to mitigate environmental justice impacts.

The region's counties, cities, and towns can use this data and the mitigation strategies that SCAG provides to address historical inequities, and improve health and quality of life for all their residents.

Regional Funding for Local Planning

1 PERFORMANCE MEASURE

1. Fund Local Planning for Smart Growth

GOAL

Support transit, transit-oriented development, and active transportation

PERFORMANCE MEASURE

Funding for planning for transit, transit-oriented development, and active transportation

STATUS

SCAG's Sustainability Program provides some funding to help local jurisdictions plan for better transit, transit-oriented development, and safe walking and biking. This funding has increased over time, and though the program is still very small, it is a helpful model.

Why It Matters

One of the biggest challenges in implementing state law SB 375 is the lack of funds to actually reduce greenhouse gases through more climate-friendly land use and transportation. Funds for planning are also scarce, and projects can't happen without planning. In Southern California, this funding is particularly scarce because SCAG has less funding and authority than the state's other metropolitan planning organizations.

The 2012 RTP/SCS set up a new Sustainability Program to help connect local planning to regional goals around some of the RTP/SCS's most critical components: public transit, transit-oriented development, and active transportation. Though these funds are a fraction of the total needed, they can help get some projects under way. This is a good model for county and state funding to build on.

TABLE 13:
SUSTAINABILITY PROGRAM FUNDING, 2011-2014

Planning Funds for:	2011-12	2012-13	2013-14
Public Transit	\$681,000	\$483,000	\$910,000
Transit-Oriented Development	\$643,000	\$624,000	\$1,278,000
Bike and Pedestrian Projects	\$0	\$336,000	\$1,708,000
Complete Streets	\$1,281,000	\$1,570,000	\$3,264,000

Source: SCAG

Moving Forward

SCAG has stepped up its Sustainability Program since its inception: the program should be expanded further if at all possible. SCAG should make sure this program is accessible to unincorporated and rural areas, which are often in sore need of planning funds. SCAG can also help identify other sources of funding for local planning, and help cities and towns compete for them.

County Transportation Commissions should offer funds for planning, using this as a model. As their budgets are far larger, that could make a much bigger impact—on a scale that can truly transform the region and live up to its vision.



Recommendations

GETTING ON TRACK

Southern California is taking steps to implement its Sustainable Communities Strategy. However, the region has only begun the shift that is necessary: it is not yet on track to reach its goals. More action is needed for the region to thrive as it grows.

These recommended actions require political will, vision, and leadership. They have the strong support of ClimatePlan's broad coalition, and they will result in a more prosperous, healthy region for all.

Greenhouse Gases

Track greenhouse gases, and plan to reduce them: County transportation plans can show how projects will reduce vehicle miles traveled (VMT) and greenhouse gases enough to enable the region to meet its targets. SCAG can help with this, and the state could actually require it. County transportation plans can also clearly prioritize funding for projects that provide public health and equity benefits while reducing VMT and greenhouse gas emissions.

- County Transportation Commissions in San Bernardino, Orange, and Los Angeles counties have taken initial steps. Those in Riverside, Imperial, and Ventura have not. All counties can help by doing more to forecast, monitor, and reduce greenhouse gases to ensure the success of the entire plan.

Provide regular reports on GHG reductions: SCAG can provide regular updates to help decision-makers and the public see how the region and all its jurisdictions are doing on meeting greenhouse gas reduction goals.

Broaden the range of projects with quantified GHG reductions: Cap-and-trade funding requires quantified GHG reductions, but data is often unavailable on the reductions achieved by sustainable communities strategies such as creating active transportation networks, building affordable housing, and protecting natural lands. Many good projects therefore have difficulty qualifying for funding. By advancing research on these benefits, SCAG can help.

Educate and encourage local jurisdictions to reduce GHG emissions: To meet the region's greenhouse gas emission reduction goals, all member jurisdictions must act. SCAG can help by continuing its support for elected officials and regional stakeholders with education as well as assistance in applying for funding to reach the goals. Small communities especially need this valuable assistance, and priority should go to disadvantaged communities.

Public Transit

Increase investment in public transit: County Transportation Commissions (CTCs) can increase investments in public transportation to give residents more options and reach regional goals. Prioritizing disadvantaged communities will help the people who depend most on reliable public transit.

- Riverside and San Bernardino counties particularly can increase their support for public transit, which is currently far lower than other counties'.

Use sales taxes for these investments, as well as new revenue sources: More county sales taxes can support public transit. SCAG can help counties study these and alternative revenue sources, such as the Mileage Based User Fee, as well as ways to restructure existing funding.

- Los Angeles' 2008 Measure R sales tax has been instrumental in Metro rail expansion; a new sales tax measure in 2016 could do even more to support public transit, extending its regional leadership. New San Bernardino and Orange counties' sales taxes could also include more for public transit.
- Ventura County has the opportunity to invest in sustainable transportation by passing its first transportation sales tax, allowing it to qualify for additional funding sources and make these investments go further.

Boost state and federal funding: Federal and state sources must provide significantly more revenue—which has dropped over the years, even as demand has risen—to support public transit.

Fix it first to make complete streets for all modes: Road and highway improvements will be more effective if they focus on maintenance, complete streets, and multimodal strategies. Adding new lanes, as Caltrans recently noted, only “induces demand,” failing to relieve gridlock.

Update transportation plans more frequently, and involve the community: Updating county transportation plans more frequently, with a transparent and inclusive approach, will help identify the most crucial transit needs.

- Riverside County has no long-range county transportation plan. Without that, its decision-making is not transparent to the public, and there is no way to tell whether the county is reducing greenhouse gas emissions.

Continue convening and supporting regional leaders and stakeholders to improve public transit: SCAG plays a critical role in educating and supporting elected officials to tackle issues of regional importance, including transportation.

- SCAG can also help local jurisdictions and transit agencies develop strategies to promote transit, such as encouraging employers and developers to offer free transit passes in lieu of parking, and identifying funding to help schools and low-income service providers give out free transit passes as well.

Increase mobility in rural areas: Residents in low-income rural communities often suffer from major gaps in infrastructure. SCAG can work with CTCs to identify and fund solutions such as vanpools and subsidized forms of ride-sharing. Building sidewalks and bike lanes in rural areas is essential to help children and adults reach bus stops and other destinations safely. Good communication and outreach will also help residents find out what services are available.

- Ventura County has a new program to enable seniors to reimburse people who drive them—friends, family members, or neighbors, for example—on errands they need. This program may help seniors get rid of their own cars while keeping multiple transportation options.

Make sure new jobs and affordable homes are close to transit: For transit to provide a viable and convenient option, people need to be able to reach it from both their homes and jobs. Implementing first-mile last-mile plans will help close the gaps, such as the plan developed jointly by SCAG and Metro (Los Angeles MTA).

Active Transportation

Aim far higher than 1%: The region can do far better than a goal of 1% of transportation spending going toward walking and biking. By investing more, and sooner, CTCs can help thousands of people to walk and bike on safer streets every day. This investment is especially important in disadvantaged communities, where more people walk and bike to public transit and are more vulnerable to collisions. County sales taxes can include more support for walking and biking, and show voters their investment will make communities safer.

Increase state and federal government support: Federal and state sources must do more to support active transportation infrastructure, which helps to meet many goals around public health, safety, climate, air quality, and more.

Adopt, fund, and implement first mile / last mile plans: Planning safe routes to walk and bike to transit is key to helping people reach transit easily, boost ridership, and make the whole system work better.

Help more communities adopt and implement Vision Zero policies: The cities of Los Angeles and Santa Ana are the first in the region to create Vision Zero policies to end all traffic deaths by a set date (2025 in LA), largely through better street design. More communities should adopt these. SCAG can support them by setting a target to get more policies adopted regionally, and by providing information on Vision Zero at regional meetings and events.

Provide better data on active transportation: Data on walking and biking is generally incomplete and infrequently updated; the main sources are state and federal travel surveys, and SWITRS state injury data, which lags by years and systematically under-reports walking and biking injuries and deaths. In rural areas, the lack of data can mean that an enormous need goes unmet.

- SCAG already has several initiatives supporting active transportation, and can continue this important work: helping communities gather their own data (e.g., walk/bike counts and local police reporting), funding local studies, and collecting and sharing this data (as it already does with the Bicycle Data Clearinghouse).

Recommendations (CONTINUED)

Affordable Housing

Plan for more affordable housing: Cities and towns can help meet the extreme need for affordable housing by planning for 125% of the need, as not all sites identified will be viable. Local jurisdictions, SCAG, and the state can work together to make sure there are workable plans for where and how to build needed affordable homes.

- Both the city and the county of Riverside's housing elements are out of compliance, though all other cities and towns in the county are in compliance. Especially in this fast-growing area, planning for new development is important; this could be a missed opportunity.
- SCAG could make sure that communities have certified housing elements in order to receive Sustainability Program funds; similar grants in the Bay Area make this condition.

Go beyond housing elements: Cities and towns must adopt policies to encourage the creation of affordable homes, for example, increasing density along transit corridors, lowering parking requirements and “unbundling” parking to make homes cheaper to build, encouraging in-law units, and using effective inclusionary ordinances to build affordable homes with every new development.

Create state funding for affordable home construction: A long-term source of funding for affordable housing is needed from the state. The state can also help by investing in targeted programs to supplement private housing construction in low-income communities.

Track and report the number of affordable homes built: Cities and towns are required to report the number of affordable homes built, but right now only about half are doing so. Though the rest should do this, the state could help by making reporting easier, especially given cuts to planning departments. Without this critical information, the region cannot meet a need that is fundamental for families and for the economy.

Continue convening leaders and stakeholders to address housing issues, including gentrification and displacement: SCAG can continue its important convening role to bring regional elected officials and stakeholders together to discuss solutions to the affordable housing crisis. SCAG can also use its strong research capacity to help track displacement and gentrification throughout the region.

Transit-Oriented Development

Build new jobs and homes around public transit: Many cities are planning for new housing and employment around transit lines; others can follow their lead, and use tools like reforming zoning and parking requirements to support compact development.

- Riverside County is growing rapidly; to reap multiple benefits, this growth can focus around public transit where possible, and in existing communities.

Support cities and counties and share data on their development: SCAG can continue and if possible expand its work to help cities and counties apply for new funding sources, such as the Affordable Housing and Sustainable Communities (AHSC) grant program. Two examples are the “California Gold” Cap and Trade workshops and Cap and Trade Assistance Team (CTAT).

Count and share data on the new jobs and homes that are built: As SCAG works with cities and counties to track where new growth is occurring, sharing this data frequently will help show progress.

Support rural areas: Disadvantaged rural areas need investment in existing communities and more access to transit. SCAG can work with local leaders, providing tools, strategies, and support to address infrastructure gaps and support infill.

Bring more balance to jobs and housing: SCAG can continue its research on jobs-housing fit, especially at the subregional and county levels, and help cities and towns implement policies to achieve greater balance and reduce long commutes.

Continue sharing best practices in transit-oriented development (TOD): SCAG can continue supporting TOD by sharing strategies for a range of community types, from large cities to suburbs to rural communities with vanpool hubs. SCAG can also use its data and expertise to identify priority areas for TOD in Southern California.

Fund and implement “first mile/last mile” plans: To help compact development around transit reach its full potential, first mile/last mile plans need to be implemented to help people get to and from transit.

Land Conservation

Fund, plan, and act, to conserve land: counties can conserve important landscapes by prioritizing regional, state, and federal funding opportunities. Agencies can create and implement strong policies and plans, like those in Riverside and Orange counties, to preserve natural lands and protect endangered species.

Develop and implement a regional open space plan: SCAG can continue its work with cities, counties, and stakeholders to build upon the mapping work already done, and develop and implement a regional open space and mitigation plan that preserves the region's iconic landscapes.

- When new transportation projects travel through important landscapes that should be preserved, the sales taxes used to build these new corridors can fund mitigation; this funding can be made available in advance, and as part of a regional approach.

Monitor rates of land loss: SCAG can help monitor rates of development using Farmland Mapping and Monitoring Program data to make sure the loss of acreage is slowing as planned. SCAG can share this with regional stakeholders.

Public Health

Use strong public health tracking metrics: SCAG has been working to connect planning and public health, and can use strong metrics for tracking and reporting on public health. These metrics can include transportation-related physical activity, high ozone days, and levels of particulate pollution.

- San Bernardino, Riverside, and Los Angeles counties have extremely high levels of smog and particulate pollution; reducing driving will help these counties and the region keep cleaning up the air.

Quantify and communicate the health benefits of different planning scenarios: SCAG can use new modeling tools to quantify health outcomes, and give decision-makers and the public clear choices among land use and transportation scenarios.

- The analysis can look at a broader array of health impacts. For example, in addition to asthma caused by traffic pollution, it can also look at reductions in heart disease, stroke, and diabetes with increased physical activity.
- SCAG has developed a public health module of UrbanFootprint, a scenario analysis tool being used in the new RTP/SCS. This is an excellent step, and County Transportation Commissions can use also this in their Long-Range Transportation Plans; SCAG can help with technical assistance.

Study and address pollution problems in underserved communities: Low-income communities and communities of color suffer disproportionately high rates of air pollution from roadways and freight corridors, with higher rates of heart disease and asthma. They also often lack infrastructure for safe and healthy physical activity, like sidewalks and bikeways. A health equity analysis could help prioritize investments that improve health in these communities.

Build zero-emission transportation options into land-use and transportation planning: SCAG can promote zero-emission vehicle (ZEV) charging access, and integrate zero-emission cars, trucks, and buses into sustainable community planning, including car sharing. ZEVs can reduce the toxics and pollutants where people live. Coordinating these technologies with land-use and transportation planning will help achieve more climate and public health goals.

Plan for more sustainable freight systems: Regional planning should align closely with—and inform—new statewide sustainable freight initiatives by the Air Resources Board, CalTrans, and the Governor's recent Executive Order. Land-use planning that reduces localized freight pollution is critical to better air quality and healthy communities.

Recommendations (CONTINUED)

Equity

Plan and act to prevent gentrification and displacement: SCAG can track gentrification and displacement, and identify areas at risk — low-income communities of color, disproportionately burdened by social barriers and pollution, especially where new infrastructure is going in. SCAG can encourage “no net loss” policies, recommend mitigation strategies, and identify other best practices to help.

- New development is already raising these issues in Los Angeles and Orange counties, but other counties will need to address it as well.
- The University of California’s Center for Community Innovation has developed a regional “early warning” system for displacement that could be adapted for Southern California by SCAG or a Southern California university.

Use “Communities of Concern” to address inequities more effectively: SCAG is adopting a model, based on those used in the Bay Area and by the state, to prioritize investment areas based on social equity and data. In addition to being part of the environmental justice analysis, this should also inform other regional planning activities.

- County Transportation Commissions can do “Communities of Concern” analyses to make sure their transportation plans are informed and equitable.

Build infrastructure where it’s most needed, especially low-income and rural communities: The state, SCAG, and local jurisdictions can all do more to get basic infrastructure built in low-income and rural communities, such as sidewalks, bike lanes, and vanpools. This will greatly improve residents’ safety and quality of life.

- Riverside and San Bernardino counties are home to many of these communities, which makes those counties’ low transit spending a particular concern.
- To make sure children can get to school safely, all communities need sidewalks, crosswalks, and protected space for biking.

Take a closer look at conditions across the region and set specific goals to improve them: SCAG’s environmental justice analysis can look more carefully at indicators of gentrification and displacement. Better data on risks to walking and biking would be very helpful, and also on walking access to schools, parks, and services. SCAG can analyze climate adaptation needs for under-served communities, and add climate resiliency strategies. Also, there are some goals that are simply “improvement over baseline;” more specificity will help them be more effective.


Regional Support for Local Planning

Formalize the relationship between SCAG and the County Transportation Commissions (CTCs): Making it explicit that CTCs are also responsible for delivering on the RTP/SCS will help make the whole region more effective at implementing it.

- This could build upon the Memoranda of Understanding that SCAG and the CTCs created together.
- As new transportation sales taxes are passed, they can clearly commit to consistency with the SCS and to meeting state GHG goals.

Continue providing valuable data and analysis on critical regional issues: Regional issues—like transportation, housing, equity, and conservation—require a regional analysis. SCAG plays a vital role in providing this. Data on many of these issues is old, incomplete, or missing entirely. Many communities do not have the resources for analysis; SCAG can support member jurisdictions with this much-needed information.

Identify a funding source to expand SCAG’s Sustainability Program: SCAG’s Sustainability Program funds essential planning efforts, providing incentives and financial support for local agencies to help implement the SCS. Expanding this now-small but model program would increase its impact and speed the region’s progress.



**“Southern California can clean the air,
dramatically reduce chronic disease,
and save billions in health care costs
by reducing the need to drive.”**

American Lung Association in California

Bonnie Holmes-Gen, Senior Director, Air Quality and Climate Change



Conclusion

SOUTHERN CALIFORNIA IS MAKING PROGRESS. BUT IS THE REGION ON TRACK?

In many areas, the region has made impressive strides forward, and the results are starting to become visible. In most areas, more action is also still needed. Los Angeles' investments in new rail lines are leading the nation. Regionally, vehicle miles traveled are dropping. And over the long term, air quality has improved. But the region's families desperately need more affordable homes. Children—and people of all ages—need safer streets for walking and biking. And Southern California's unique landscapes need protection from rapid development.

Is the overarching goal being met? Is the region reducing greenhouse gas emissions? Yes, residents are starting to drive less—but will it be enough, especially as the region's population grows?

The region has started in the right direction. Southern California leaders can build upon the many positive steps they have already taken. More action is still needed.

Measuring Progress

Making progress requires measuring progress. With this report, ClimatePlan and its partners have put together an interim dashboard to measure progress on the 2012 RTP/SCS. We have gathered existing data—but one of our most significant findings is that much of the data on the most important goals simply does not exist.

This highlights the much-needed role of the Southern California Association of Governments, with its tremendous power to gather, analyze, and share information.

SCAG can track and report progress on each of the topics identified in this report. This will do much to support the leaders and residents of counties, cities, and towns across the region. Without carefully measuring progress on goals, there's no way to know if the region will achieve its vision.

A Role for the State

This report focuses on what the Southern California region—and all its many jurisdictions and agencies—can do to achieve the goals set out in the 2012 RTP/SCS—and the new plan as well.

But the region needs help.

State policymakers have important roles to play. Most of all, they can provide funds to help meet the goals, working closely with regional decision-makers to make sure the funds go where they're most needed.

The state can also play a crucial role by helping SCAG monitor the implementation of its Sustainable Communities Strategy. The state could provide much-needed data, and could also help fund the monitoring.

Meeting the Challenge

Across a massive, diverse region, hundreds of counties, cities, and towns have challenged themselves to grow in ways that make their air cleaner, their streets safer, and their people healthier. Today, communities must become more connected and more resilient in the face of change, and must come together to tackle issues that don't end at political boundaries.

We believe Southern California is equal to the challenge. Many communities are already leading the way.

We hope this report helps more local leaders to take action.

Southern California is a place the world looks to for inspiration, known for its ideas and energy. Together, its communities can show the world how to build a brighter, better, more sustainable future for all.

Data Sources and Calculations

Greenhouse Gas Emissions

1. GREENHOUSE GAS REDUCTIONS IN COUNTY LONG-RANGE TRANSPORTATION PLANS

ClimatePlan reviewed each County Transportation Commission's website and consulted with staff to find out if the county had updated its long-range transportation plan since the adoption of SB 375 in 2008. If it had, ClimatePlan reviewed its plan to see whether and how the plan addresses GHG emissions.

2. VEHICLE MILES TRAVELED (VMT)

ClimatePlan asked Southern California Association of Governments (SCAG) staff how they plan to track greenhouse gas emissions to meet SB 375 goals. Staff shared the most recent (2013) California Public Road Data report from the California Department of Transportation's Highway Performance Monitoring System, which gives total (urban plus rural) daily vehicle miles traveled (VMT) by county. We compared 2005 to 2013 Public Road Data reports to find VMT trends. The VMT figures include all vehicle classes. <http://www.dot.ca.gov/hq/tsip/hpms/>

Per-capita VMT was estimated by dividing total daily VMT by the population of each county for January of that year, based on (E4) historical population numbers from the California Department of Finance's Demographic Research Unit.

<http://www.dof.ca.gov/research/demographic/dru/index.php>

Public Transit

1. FUNDING FOR PUBLIC TRANSIT

For capital projects, ClimatePlan identified the planned spending in the 2012 RTP/SCS for Public Transit. We compared this with programmed spending in the Federal Transportation Improvement Program (FTIP), which is the capital list of all transportation projects proposed over a six-year period. ClimatePlan reviewed the 2011, 2013, and 2015 FTIP to identify the programmed spending for Public Transit for 2012–2020, tabulated projects in the FTIPs to determine funding by county, then aggregated across the region.

To compare the funds programmed in the six-year FTIPs with the five-year increments used in the RTP/SCS, ClimatePlan used a "rolling average" approach: we first calculated the annual average spending planned in each FTIP, then added these planned averages together across the five years of the RTP/SCS. For example, to represent spending for the five-year period of 2011–2015 used in the RTP/SCS, we added together two years of average annual spending from the 2011 FTIP (to represent 2011 and 2012), two years of average annual spending from the 2013 FTIP (to represent 2013 and 2014), and one year of average annual spending from the 2015 FTIP (to represent 2015). This "rolling average" approach was used, rather than looking at the spending planned for a given year, to avoid double-counting projects whose target spending dates may have shifted, and to minimize stochasticity caused by single large projects.

For operations, ClimatePlan used the National Transit Database to collect operating expenses for all transit agencies located in the following Urbanized Areas: Los Angeles-Long Beach-Anaheim, Simi Valley, Riverside-San Bernardino, Victorville-Hesperia, Oxnard, Indio-Cathedral City, Lancaster-Palmdale, Camarillo, Thousand Oaks, Santa Clarita, El Centro-Calexico. This data was only available through 2013.

2. RIDERSHIP

At ClimatePlan's request, SCAG also collected data on transit ridership per capita to supplement the transit-to-work numbers. The sources for this data were the National Transit Database urban operators for ridership and the California Department of Finance for population numbers.

3. TRANSIT TO WORK

The best source for data on all trips is the National Household Travel Survey; however, this was last released in 2009 and is only updated every five to eight years. Instead, ClimatePlan used the annual American Community Survey (ACS), which is updated annually but only addresses transportation to work. ClimatePlan collected transit to work data from the American Community Survey for 2011, 2012, and 2013, the most recent year available. This data was collected at the county level, and then aggregated to the regional level.

Transit-Oriented Development

1. JOBS AND HOUSEHOLDS ACCESSIBLE BY PUBLIC TRANSIT

To measure proximity to transit, the Center for Neighborhood Technology (CNT) helped ClimatePlan calculate the number of jobs and households in the six counties of the Southern California region that are either in High-Quality Transit Areas (HQTAs) or near any transit using CNT's AllTransit™ database. HQTAs are defined in the 2012 RTP/SCS as walkable transit villages with a minimum density of 20 dwelling units per acre, within a ½ mile of a well-served transit stop, including transit corridors with service frequency of 15 minutes or less during peak commute hours. The HQTA data came from the Southern California Association of Governments, using maps of HQTAs that will be created by 2035, according to the 2012 RTP/SCS.

The data on jobs and households came from the 2008 and 2012 Longitudinal Employer-Household Dynamics data from the Census Bureau, which provides data on employers and employees under the Local Employment Dynamics (LED) Partnership.

ClimatePlan calculated the change in numbers of homes and jobs between 2008 and 2012, and the percentages of new homes and jobs that were in 2035 HQTAs for each county (except Imperial) and region-wide.

Active Transportation

1. FUNDING FOR ACTIVE TRANSPORTATION

For capital projects, ClimatePlan identified the spending planned in the 2012 RTP/SCS for Active Transportation. ClimatePlan then reviewed the 2011, 2013, and 2015 FTIPs to identify the programmed spending from 2012 to 2020 for Active Transportation, finding projects with FTIP codes NCN 25, 26, and 27. ClimatePlan tabulated projects in the FTIPs to determine funding by county, then aggregated this across the region.

To compare the funds programmed to the RTP/SCS in the same five-year increments used in the RTP/SCS, ClimatePlan used the same “rolling average” approach described in the “Funding for public transit” section above.

2. RATES OF WALKING AND BIKING TO WORK

Because National Household Travel Survey data on all trips is released only every several years, ClimatePlan used data from the annual American Community Survey on commuting, which is collected annually. Commute trips are only a small subset of travel, particularly for walking and biking, so this data is only one measure to see how much walking and biking increase with increased investment. ClimatePlan collected walking and biking to work data from the ACS for 2011, 2012, and 2013.

3. WALKING AND BIKING INJURIES AND FATALITIES

With help from the Safe Routes to School National Partnership, ClimatePlan used data from the Statewide Integrated Traffic Records Search (SWITRS) on the annual number of fatal and injury collisions by pedestrians and bicyclists as a percentage of all fatal and injury collisions.

Affordable Housing

1. HOUSING ELEMENTS

With help from Move LA, ClimatePlan used August 2015 data on each jurisdiction’s certified Housing Element status from the California Department of Housing and Community Development (HCD) website. For this section, “Affordable Housing Units” are defined as those that are affordable to very-low-income and low-income residents.

2. AFFORDABLE HOUSING BUILT

ClimatePlan collected Annual Housing Element Progress Reports for all available jurisdictions in Southern California for 2006 through 2013. These reports show how many units have been built at different levels of affordability. They are required, but only 102 out of 196 (at the time) jurisdictions submitted their reports. In addition, earlier years tend to have less complete data. For this section, “Affordable Housing Units” are defined as those that are affordable to very-low-income and low-income residents. ClimatePlan looked up the region’s housing allocations for the last period (2006–2014) and the current period (2014–2021) in the RTP/SCS, and compared the allocation for the last period to the 2006–2013 units built.

Conservation

1. REGIONAL CONSERVATION PLANNING

ClimatePlan reviewed SCAG’s Overall Work Plans (OWPs) for 2013–2014 and 2014–2015 and identified SCAG’s funding allocations and deliverables on this commitment. In the 2012 OWP, SCAG committed to the following steps for open space: 1) design program parameters and refine planning, 2) create a working group with partners and stakeholders, 3) create open space strategy, 4) collect comments and suggestions, 5) propose final open space strategic plan and mitigation strategy for future planning. The planned products were open space resource maps and a final strategic open space plan.

2. RATES OF LAND DEVELOPMENT

ClimatePlan collected county summaries from the California Department of Conservation’s Farmland Mapping and Monitoring Program website, and totaled the acreage and net change for “Urban and Built-Up Land” for each two-year period from 2002 to 2012, the most recent year available.

The Final Program Environmental Impact Report (PEIR) for the 2012 RTP/SCS estimated that the total land consumed would be approximately 334 square miles or 213,800 acres. This is less than half of the No Project Alternative, which would consume 742 square miles, or 474,900 acres.

Public Health

1. COLLABORATION WITH PUBLIC HEALTH PROFESSIONALS

ClimatePlan reviewed SCAG’s website to tabulate events, workgroups, meetings, and subcommittees geared towards convening public health professionals since the RTP/SCS adoption in 2012.

2. PHYSICAL ACTIVITY

ClimatePlan collected data from the California Health Interview Survey (CHIS) on “Adults ages 18+ who walked for transportation or leisure for at least 150 minutes in the past week” for residents of the Southern California region. The most recent data available for this indicator was 2011–2012.

3. OZONE POLLUTION

ClimatePlan collected the number of high ozone days by county from the American Lung Association’s State of the Air report, which is published annually. The 2015 report gives 2011–2013 numbers; the 2014 report gives 2010–2012 numbers.

<http://www.lung.org/associations/states/california/advocacy/fight-for-air-quality/sota-2015/state-of-the-air-2015.html>

4. PARTICLE POLLUTION

ClimatePlan collected the weighted average number of days with unhealthy levels of particle pollution, by county, from American Lung Association’s State of the Air report, which is published annually. The 2015 report gives 2011–2013 numbers; the 2014 report gives 2010–2012 numbers. California state and county data is online at <http://www.stateoftheair.org/2014/states/california/> and <http://www.stateoftheair.org/2015/states/california/>

Data Sources and Calculations (CONTINUED)

Equity

1. WORK WITH COMMUNITY LEADERS

ClimatePlan reviewed SCAG's website, reports, agendas, meeting materials, and other sources such as the Overall Work Plan to identify how SCAG has worked with local jurisdictions and stakeholders to address the possible effects of gentrification.

2. ASSESS IMPACTS ON LOW-INCOME COMMUNITIES

ClimatePlan reviewed the Environmental Justice Appendix of the 2012 RTP/SCS and worked with partners to get stakeholder feedback on SCAG's environmental justice analysis.

Regional Funding for Local Planning

1. TRANSIT PLANNING FUNDING, TRANSIT-ORIENTED DEVELOPMENT, AND ACTIVE TRANSPORTATION

SCAG provided ClimatePlan with an updated list of all the funded Sustainability Program projects, including current and prior year funding summaries. ClimatePlan separated the projects into three categories based on their project description—Transit, Transit-Oriented Development, and Active Transportation—and tabulated the projects by both regional and county funding, based on their category.

Note: The projects for this category can overlap with other categories. For example, one project could qualify as both Transit-Oriented Development and Active Transportation. Additionally, some of the awarded projects do not fall into one of these three categories.

Endnotes

1. Southern California Association of Governments (SCAG). 2012. 2012–2035 Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS), Page 9. “We will reduce greenhouse gas emissions by 9% by 2020, and by 16% by 2035.”
2. SCAG. 2012. 2012–2035 RTP/SCS, Page 9. “We will reduce greenhouse gas emissions by 9% by 2020, and by 16% by 2035.” Page 44: “The RTP/SCS’s multimodal strategy aims to reduce per capita vehicle miles traveled (VMT) over the next 25 years.”
3. SCAG. 2012. 2012–2035 RTP/SCS, Page 104 & Page 106: Table 3.6.
4. SCAG. 2012. 2012–2035 RTP/SCS, Page 39. “Increase the use of transit, bicycling, and walking.”
5. SCAG. 2012. 2012–2035 RTP/SCS, Page 20: State funding cuts of \$759 million; service cuts up to 20%; boardings falling up to 27%.
6. 2015. Ridership statistics. Los Angeles County Metropolitan Transit Authority. <http://www.metro.net/news/ridership-statistics/>
7. Orange County Workforce Investment Board. February 2015. Economic Indicators Dashboard, Page 53. http://www.oceconomy.org/wibfiles/All_Measures_February_2015.pdf
8. Los Angeles Times. June 9, 2015. “Metro to offer fare, pass discounts to boost ridership, revenue.” <http://www.latimes.com/local/california/la-me-california-commute-20150609-story.html>
9. Los Angeles County Metropolitan Transportation Authority. September 2015. Ridership Action Plan. (Powerpoint) http://media.metro.net/board/Items/2015/09_september/20150910gatitem6a.pdf
10. Orange County Register. August 19, 2015. “Why many Orange County riders got off the bus.” <http://www.ocregister.com/articles/percent-678500-bus-orange.html>
Orange County Register. July 19, 2015. “With more commuters ditching the bus, OCTA is weighing its options.” <http://www.ocregister.com/articles/bus-672533-riders-buses.html>
11. Riverside Transit Agency Website. January 2015. “Annual Bus Ridership Hits All-Time Peak.” <http://www.riversidetransit.com/index.php/news-a-publications/latest-news/item/575-annual-bus-ridership-hits-all-time-peak> Ridership is up 4.3% 2013-2014 (per article); population growth (per state) is up 1.9% 2013-2014; ridership increase is more than just population increase.
12. U.S. Department of Transportation Federal Highway Service. 2009. National Household Travel Survey, Page 15, Table 6. <http://nhts.ornl.gov/2009/pub/stt.pdf>
13. Metropolitan Transportation Commission. 2006. New Places, New Choices: Transit Oriented Development in the San Francisco Bay Area.
14. California Housing Partnership Corporation. January 2013. Working Paper. Building and Preserving Affordable Homes Near Transit: Affordable TOD as a Greenhouse Gas Reduction and Equity Strategy: Page 1.
15. SCAG. 2012. 2012–2035 RTP/SCS, Page 131. “The 2012–2035 RTP/SCS assumes that 51 percent of new housing developed between 2008 and 2035 will be within HQTAs, along with 53 percent of new employment growth (compared with 39 and 48 percent, respectively, in 2008).”
Adding the missing data for Imperial County, though it would be informative, would not significantly affect the 18% regional average cited above—of households that are not near any transit—as Imperial has only 1% of the region’s households.
16. SCAG. 2012. 2012–2035 RTP/SCS, Page 104 & Page 106: Table 3.6.
17. New York Department of Transportation. December 2013. The Economic Benefits of Sustainable Streets. <http://www.nyc.gov/html/dot/downloads/pdf/dot-economic-benefits-of-sustainable-streets.pdf> Smart Growth America. 2012. Fact Sheet: Complete Streets Stimulate the Local Economy. <http://www.smartgrowthamerica.org/documents/cs/factsheets/cs-economic.pdf>
18. SCAG. 2012. 2012–2035 RTP/SCS, Page 21.
19. Los Angeles County Department of Public Health PLACE Program. December 2011. A Methodology for Estimating Costs of Bicyclist and Pedestrian Improvements in the SCAG Region. http://publichealth.lacounty.gov/place/docs/DPHCost_Method_new.pdf

- 20.** SCAG. 2012. 2012–2035 RTP/SCS, Active Transportation Appendix, Page 42: “...bicycling and walking mode shares can be estimated as 1.7 percent and 3.1 percent in 2020, and 3.9 percent and 6.3 percent in 2035.” Staff confirmed 9/9/15 that this is a commute mode share goal. http://rtpscs.scag.ca.gov/Documents/2012/final/SR/2012fRTP_ActiveTransportation.pdf
- SCAG. 2012. 2012–2035 RTP/SCS Active Transportation Fact Sheet. “Increase commute mode share of bicycling and walking to 3.9% and 6.3% in 2035.” <http://rtpscs.scag.ca.gov/Documents/factsheets/rtpscsActiveTransportation.pdf>
- 21.** SCAG. 2015. 2016–2040 RTS/SCS Active Transportation Fact Sheet, using California Household Travel Survey data. http://scagrtpscs.net/Documents/07_Station2-ActiveTransportation.pdf [sic]
- 22.** SCAG. 2012. 2012–2035 RTP/SCS, Page 3: “Twenty-one percent of all traffic-related fatalities involve pedestrians. This fatality rate is unacceptable, and if we plan to successfully move toward a more sustainable future that includes plenty of active transportation, we must address the safety deficiencies in all modes of transportation.” Page 30: The RTP/SCS “seeks to promote active transportation options, increased funding, and a decrease in bicycle and pedestrian fatalities and injuries.”
- 23.** SCAG. 2012. 2012–2035 RTP/SCS, Page 152. “Collaborate with local jurisdictions and agencies to acquire a regional fair share housing allocation that reflects existing and future needs.”
- 24.** California Department of Housing and Community Development. August 2015. Housing Element Compliance Report. <http://www.hcd.ca.gov/housing-policy-development/housing-resource-center/plan/he/status.pdf>
- 25.** SCAG. 2012. 2012–2035 RTP/SCS, Page 125. “The SCAG region’s official regional housing need from the California Department of Housing & Community Development (HCD) for the planning period 2014–2021 is 409,000–438,000 housing units. Of these, approximately 164,000–176,000 are expected to be in the very low- and low-income category (affordable to those who make less than 80 percent of area median income), 72,000–77,000 are expected to be in the moderate-income category (affordable to those who make between 80 percent and 120 percent of median income), and 173,000–185,000 are expected to be offered at the above moderate-income category.” These numbers are for the RHNA period after the one cited in the chart. Page 152: Table 4.3 “Collaborate with local jurisdictions and agencies to acquire a regional fair share housing allocation that reflects existing and future needs.”
- 26.** SCAG. July 2007. Final Regional Housing Need Allocation Plan - Planning Period (January 1, 2006 - June 30, 2014) for Jurisdictions within the Six-County SCAG Region. http://rtpscs.scag.ca.gov/Documents/rhna/2007/RHNA_FinalAllocationPlan071207.pdf
- 27.** SCAG. 2014. Final Regional Housing Need Allocation Plan — 5th Cycle Regional Housing Needs Assessment Final Allocation Plan, 1/1/2014–10/1/2021 <http://rtpscs.scag.ca.gov/Documents/rhna/5thCyclePFinalRHNAplan.pdf>
- 28.** Legislative Analyst’s Office. March 2015. California’s High Housing Costs: Causes and Consequences. <http://www.lao.ca.gov/reports/2015/finance/housing-costs/housing-costs.pdf>
- 29.** For more details, search for “builder’s remedy” here: ftp://www.leginfo.ca.gov/pub/07-08/bill/sen/sb_0351-0400/sb_375_cfa_20080903_100317_sen_comm.html
- 30.** SCAG. 2012. 2012–2035 RTP/SCS, Page 153. “Engage in a strategic planning process to determine the critical components and implementation steps for identifying and addressing open space resources. Identify and map regional priority conservation areas for potential inclusion in future plans. Engage with various partners, including CTCs and local agencies, to determine priority conservation areas and develop an implementable plan.”
- 31.** Ibid.
- 32.** SCAG. 2012. 2012–2035 RTP/SCS, Page 152: Table 4.3. “Collaborate with the region’s public health professionals to enhance how SCAG addresses public health issues in its regional planning, programming, and project development activities.”
- 33.** <http://www.surgeongeneral.gov/library/calls/walking-and-walkable-communities/exec-summary.html>
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- 35.** American Lung Association in California. 2015. State of the Air Report: Southern California Regional Summary. <http://www.lung.org/associations/states/california/advocacy/fight-for-air-quality/sota-2015/state-of-the-air-2015.html>
- 36.** The Daily Breeze. October 2014. “New AQMD report finds much lower air pollution levels across Los Angeles County.” <http://www.dailybreeze.com/environment-and-nature/20141002/new-aqmd-study-finds-much-lower-air-pollution-levels-across-los-angeles-county>
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- 37.** American Lung Association in California. 2015. State of the Air Report: Southern California Regional Summary. <http://www.lung.org/associations/states/california/advocacy/fight-for-air-quality/sota-2015/state-of-the-air-2015.html>
- 38.** SCAG. 2012. 2012–2035 RTP/SCS, Page 1. “Improve public health, and meet the National Ambient Air Quality Standards as set forth by the federal Clean Air Act.” Page 13: Table 1.1 “Protect the environment and health of our residents by improving air quality and encouraging active transportation.”
- 39.** American Lung Association. 2015. Particle Pollution. <http://www.stateoftheair.org/2014/health-risks/health-risks-particle.html>
- 40.** The American Lung Association’s *State of the Air* report for 2014 covers the years 2010–2012; the 2015 report covers 2011–2013. The grades for all counties were the same in both reports.
- 41.** American Lung Association. 2015. Particle Pollution. <http://www.stateoftheair.org/2014/health-risks/health-risks-particle.html>
- 42.** SCAG. 2012. 2012–2035 RTP/SCS, Page 129. “SCAG will work with local jurisdictions and community stakeholders to seek resources and provide assistance to address possible gentrification effects of new development on existing communities and vulnerable populations.”
- 43.** Center for Community Innovation, University of California at Berkeley. 2015. Research on Gentrification and Displacement in the Bay Area. (Statewide research is also forthcoming in 2016.) <http://communityinnovation.berkeley.edu/gentrification>

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