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INTRODUCTION

Southern California is one of the most dynamic and beautiful places on the planet. A global center for entertainment and culture, commerce, tourism and international trade, our region is graced by a temperate climate, a spectacular coastline, rolling hills and inland valleys, towering mountain ranges and expansive deserts. It is no wonder Southern California has become home to more than 18 million people.

ENVISIONING SOUTHERN CALIFORNIA IN 2040

OUR CHANGING REGION

Today, our region is in the midst of great changes. Our population continues to increase and demographics are shifting. In the coming years, Baby Boomers, born between 1946 and 1964, and Millennials, born between 1980 and 2000, will have an increasingly greater impact on how and where we live, and how we travel. Overall, our region will continue to grow more racially and ethnically diverse in the coming decades. These and other changes will transform the character of Southern California over the next 25 years as people choose different places to live and more efficient ways to get around. People will have new expectations for the health and vibrancy of their communities. They will want a greater degree of mobility, with transportation options that are more accessible and flexible. People will also expect to have more options for recreational space. They will want cleaner air. How our region responds to growth and the evolving priorities and desires of the people who live here will significantly shape our overall quality of life.

This 2016 RTP/SCS charts a course for closely integrating land use and transportation in certain areas of the region— so that we as a whole can grow smartly and sustainably. It outlines \$556.5 billion in transportation system investments through 2040. The Plan was prepared through a collaborative, continuous and comprehensive (3 Cs) process by the Southern California Association of Governments (SCAG), the largest Metropolitan Planning Organization (MPO) in the nation, and it serves as an update to SCAG's 2012 RTP/SCS.

It might seem obvious that as a region we should coordinate decisions about where people live, work, go to school, shop and spend their free time with decisions about the transportation system that serves them. But in a region as large and complex as ours, closely integrating strategies for land use and transportation is a huge undertaking. This Plan, more than just a list of projects and initiatives, tells an important story about our future. It is a story about how we will meet complex and daunting challenges in one of the biggest and most influential metropolitan regions in the world, and ultimately how working together we can integrate decisions about transportation and using land to realize a regional transportation system that promotes economic growth and sustainability.

CHALLENGES WE FACE

As we look to the future, we will confront many challenges, some of which we already face today and others that will emerge as we continue to grow. We are living now with the consequences of growth: more people, more houses, more jobs, more freight traffic and more cars. The six counties that encompass our region – Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura – have all experienced the consequences of that growth. In our urban and suburban areas, roads and highways are increasingly congested, worsening regional air pollution and increasing greenhouse gas emissions that contribute to climate change. Once dependable routes to work, school, shopping and more have become overburdened, less convenient, more time consuming and in some cases, more costly.

Neighborhoods that many people once considered affordable are now priced out of reach - particularly in established urban communities that have seen major public and private investments such as new transit access and new developments that mix upscale housing with popular stores and restaurants.

As our region's demographics evolve, there will be a greater desire for housing situated closer to jobs, healthcare, shopping and other amenities and more public transportation options. The region will have to find ways to meet these demands.

Maintaining and enhancing a transportation system that can tackle these challenges requires adequate funding, and securing it for a better transportation system will be perhaps the region's biggest challenge. Our overall transportation system is aging rapidly, and deteriorating. Also, deferring maintenance because of a lack of funding will continue to strain the system.

As our economy grows, freight traffic will increase on our roadways, along rail lines, and at our airports and seaports. This will place new demands on general transportation infrastructure such as highways and surface streets, as well as infrastructure specific to international trade and domestic commerce. This growth in goods movement also will contribute to air pollution, making it harder for the region to attain federal standards for air quality and new state rules for lowering greenhouse gas emissions.

Meanwhile, our region faces huge public health challenges, as people suffer from chronic diseases associated with poor air quality and a lack of physical activity. This is why it is so critical to integrate decisions about where we live with decisions about how we travel. It matters how neighborhoods are laid out and linked to bus lines, bike and walking paths, and other transportation options.

SUSTAINABILITY

The practice of analyzing the impacts of decisions, policies, strategies and development projects on the Environment, the Economy and Social Equity

Finally, our region faces the huge challenge of confronting and coping with the consequences of climate change. Making communities more resilient to heat waves, wildfires, rising seas, extreme rainstorms and other projected impacts will depend on smart planning.

We'll review these challenges in more depth in Chapter 3.

REALIZING OUR VISION FOR A BETTER FUTURE

The 2016 RTP/SCS outlines concrete steps for meeting these challenges and creating the conditions and infrastructure that result in increased mobility, easier access to destinations, and more transportation options. The Plan also analyzes the impacts of its decisions, policies, strategies and development projects on the environment, the economy and on social equity. By doing this, the 2016 RTP/SCS promotes a sustainable future in which the environment is protected, economic growth is supported and the Plan's benefits are widely distributed.

The 2016 RTP/SCS envisions vibrant, livable communities that are healthy and safe with transportation options that provide easy access to schools, jobs, services, health care and other basic needs. These communities will be conducive to walking and bicycling and will offer residents improved access to amenities such as parks and natural lands. Collectively, these communities will support opportunities for business, investment and employment, and fuel for a more prosperous economy. This vision recognizes the region's tremendous diversity, and that no single solution will work everywhere.

SCAG worked closely with local jurisdictions to develop the Plan, which incorporates local growth forecasts, projects and programs and includes complementary regional policies and initiatives. Because SCAG encompasses

six counties, it is important that the 2016 RTP/SCS reflect the region's diverse needs and priorities. Every effort was made to ensure that this happened.

Since 2009, every MPO has been required to develop a Sustainable Communities Strategy as part of its Regional Transportation Plan – therefore the name "RTP/SCS." This SCS is a vital part of the overall Plan. It charts a course for how the SCAG region will reach state-mandated reductions in greenhouse gas emissions from cars and light trucks, which contribute to climate change. This SCS will be discussed extensively in the coming pages. The SCS is a driving force of this Plan, although not the only one. Once implemented along with the rest of the Plan, it will improve the quality of life for all residents of the region.

While our region faces great challenges, we are living at a time of technological and economic innovation that will help us meet those challenges. New mobility innovations can help the region meet the challenges of growth and increasing demands on our transportation system. Automated vehicles, drivers available on demand, data-driven infrastructure and vehicles that respond to both their passengers and the environment are among the new mobility innovations that will reshape how we travel throughout the region. Millennials are already embracing some of these mobility innovations and are likely to be early adopters as new ones emerge. But these advances in mobility also have the potential to help Baby Boomers maintain their independence as they age.

The Plan considers new patterns of development as the regional economy continues to recover and grow, the composition of our population changes, the housing market responds to evolving needs, and demands and mobility innovations emerge. The Plan also includes a long-term strategic vision for the region that will help guide decisions for transportation and how we use land, as well as the public investments in both, through 2040.

MAJOR THEMES IN THE 2016 RTP/SCS

Throughout this Plan you'll read about important themes that resonate throughout the document and help define its focus. A few have already been introduced. These themes include:

Integrating strategies for land use and transportation. The Plan recognizes that transportation investments and future land use patterns are inextricably linked, and continued recognition of this close relationship will help the region make choices that sustain our existing resources and expand efficiency, mobility and accessibility for people across the region. In particular, the Plan draws a closer

connection between where we live and work, and it offers a blueprint for how Southern California can grow more sustainably.

Striving for sustainability. Creating a more sustainable region means growing and living in ways that do not squander the resources we have and need to survive and prosper – from the water we drink, to the air we breathe, to the energy we consume. It is essential that we strive for regional environmental sustainability as we also confront the potential impacts of continued climate change on our transportation infrastructure and communities. In Southern California, striving for sustainability will require achieving state-mandated targets for reducing greenhouse gas emissions from vehicles and federal air quality conformity requirements, and also adapting wisely to a changing environment and climate.

Protecting and preserving our existing transportation infrastructure. The Plan places a priority on investing in the transportation system we already have, to maintain and extend its life and utility. It recognizes that deferring maintenance of infrastructure leads to costlier repairs in the future.

Increasing capacity through improved system management. Pouring new concrete is not the only way to add capacity to our roadways. Transportation Systems Management, or TSM, is a powerful strategy that aims to improve the capacity and efficiency of the existing transportation system without resorting to large-scale and expensive capital improvements. Examples of TSM projects include coordinating traffic signals along a corridor; deploying changeable message signs that display real-time road information; and ramp meters that control the timing of vehicles driving onto highways.

Giving people more transportation choices. The Plan will provide people with more options for transportation and mobility, offering them numerous alternatives to driving alone. This will be accomplished by enhancing public transit capacity and increasing its viability by making it more accessible; completing critical road connections; providing greater opportunities for biking and walking, particularly for short trips; exploring how people might use alternative fuel vehicles within their neighborhoods and beyond; increasing telecommuting and flexible work schedules; encouraging new mobility innovations; and improving safety. These Transportation Demand Management (TDM) strategies will help us better manage the demand we place on the roadway network by reducing the number of people who drive alone and encouraging them to use alternative modes of travel.

Leveraging technology. Advances in communications, computing and

engineering – from shared mobility innovations to zero-emission vehicles – can lead to a more efficient transportation system with more mobility options for everyone. Technological innovations also can reduce the environmental impact of existing modes of transportation. For example, alternative fuel vehicles continue to become more accessible for retail consumers and for freight and fleet applications – and as they are increasingly used, air pollution can be reduced. Communications technology, meanwhile, can improve the movement of passenger vehicles and connected transit vehicles. Moreover, the way urban and suburban areas are shaped can support and encourage shared mobility and other new forms of transportation.

Responding to demographic and housing market changes. The region's demographics and housing market remain fluid and dynamic. The housing market has rebounded since the 2012 RTP/SCS was adopted, and the number of Millennials and empty nesters has continued to increase with many seeking smaller housing and a more walkable lifestyle. For many households in the region, minimizing transportation and housing costs remains a priority. The Plan includes strategies focused on compact infill development, superior placemaking (the process of creating public spaces that are appealing and uplifting), and expanded housing and transportation choices. The goal is to create a region that can respond nimbly to changing demographics and markets.

Supporting commerce, economic growth and opportunity. The Plan supports economic growth by building the infrastructure the region needs to promote the smooth flow of goods and easier access to jobs, services, educational facilities, healthcare and more. The Plan also preserves natural lands, improves air quality and creates vibrant urban centers – all of which are critical for attracting and retaining the people and jobs Southern California needs to thrive.

Promoting the links among public health, environmental protection and economic opportunity. The Plan places a priority on implementing the integration of transportation and land use strategies to improve our overall health. The Plan will result in improved air quality, provide more opportunities for people to be physically active, and protect natural lands and habitats. The result: communities will become healthier places to live, allowing people and businesses to thrive.

Building a Plan based on the principles of social equity and environmental justice. The Plan is designed to create regionwide benefits that are distributed equitably, while avoiding having any one group carrying the burdens of development disproportionately. It is particularly important that the Plan

consider the consequences of transportation projects on low-income and minority communities and minimize negative impacts. In striving for environmental justice, the Plan provides specific measures to lessen the negative environmental impacts of transportation projects on these communities, as well as metrics to monitor how successful these measures are throughout the communities.

THIS PLAN IS A LIVING, EVOLVING TOOL FOR PROGRESS

WHY SCAG UPDATES THIS PLAN

The State of California and the federal government require that SCAG and other regional planning agencies update their respective Regional Transportation

MOBILITY AND ACCESSIBILITY

MOBILITY refers to how quickly and efficiently people can travel from one location to another. **ACCESSIBILITY** refers to how connected people's destinations are to transportation options.

Direct improvements to the transportation system can increase mobility. Two examples are speeding up train service and relieving congestion on highways. Improving accessibility requires better coordinating our investments for how we use land with our investments for transportation. Developing housing, businesses and other "Transit Oriented Development" around train stations, for example, improves accessibility.

Plan/Sustainable Communities Strategy every four years. Key laws and requirements drive our work. Two primary mandates include:

- SCAG is required by federal law to prepare and update a long-range (minimum of 20 years) RTP (23 U.S.C.A. §134 et seq). Most areas within the SCAG region have been designated as nonattainment or maintenance areas for one or more transportation-related criteria pollutants. Pursuant to the federal Clean Air Act, SCAG's 2016 RTP/SCS is required to meet all federal transportation conformity requirements, including: regional emissions analysis, financial constraint, timely implementation of transportation control measures, and interagency consultation and public involvement (42 U.S.C. §7401 et seq).
- California Senate Bill 375 (SB 375) requires that the RTP also include an SCS, which outlines growth strategies that better integrate land use and transportation planning and help reduce the state's greenhouse gas emissions from cars and light trucks (California Government Code §65080 (b)(2)(B)). The RTP is combined with the SCS to form the RTP/SCS, which is further detailed in Chapter 5. For the SCAG region, the California Air Resources Board (ARB) has set greenhouse gas reduction targets at eight percent below 2005 per capita emissions levels by 2020, and 13 percent below 2005 per capita emissions levels by 2035. As we will discuss in this Plan, the region will meet or exceed these targets, lowering greenhouse gas emissions (below 2005 levels) by eight percent by 2020; 18 percent by 2035; and 22 percent by 2040.

While SCAG is required to meet these statutory requirements, all good long-term plans are routinely re-evaluated and updated. SCAG is committed to ensuring that the RTP/SCS is a living document that evolves as the region's demographics, priorities, desires and economy change.

BENEFITS BEYOND CLEANER AIR

This Plan, of course, is about much more than cleaner air and reduced greenhouse gas emissions, although those are primary goals. SCAG must plan for accommodating another 3.8 million residents in its region. The region also expects to add another 2.4 million jobs and 1.5 million new households by the Plan horizon of 2040. The strategies contained in the 2016 RTP/SCS are expected to produce numerous benefits. Among them are:

- **Better Placemaking:** The Plan will promote the development of

GREENHOUSE GASES

Components of the atmosphere (carbon dioxide, methane, nitrous oxide and fluorinated gases) that contribute to the greenhouse effect

better places to live and work through measures that encourage more compact development in certain areas of the region, varied housing options, bicycle and pedestrian improvements, and efficient transportation infrastructure.

- **Improved Access and Mobility:** The Plan will encourage strategic transportation investments that add appropriate capacity and improve critical road conditions in the region, increase transit capacity and expand mobility options. Meanwhile, the Plan outlines strategies for developing land in coming decades that will place destinations closer together, thereby decreasing the time and cost of traveling between them.
- **Households save more money:** The Plan is expected to result in less energy and water consumption across the region, as well as lower transportation costs for households.
- **Improved Public Health and a Healthier Environment:** Improved placemaking and strategic transportation investments will help improve air quality; enhance health as people have more opportunities to bicycle, walk and pursue other active alternatives to driving; and better protect natural lands as new growth is concentrated in existing urban and suburban areas.

These benefits add up to a simple and powerful idea: a more efficient transportation network and more livable and sustainable communities throughout our region.

KEY STEPS TOWARD IMPLEMENTING THE PLAN

To move forward on the Plan, SCAG needs to take some critical steps. Here are a few of them:

1. Funding the Plan

The 2016 RTP/SCS includes a \$556.5 billion financial plan, discussed in Chapter 6 and detailed further in the Transportation Finance Appendix, that identifies how much money will be available to support the region's capital, operating, maintenance and transportation system preservation needs over the life of the Plan. It includes a core revenue forecast of existing local, state and federal funding sources, along with new funding sources that are reasonably expected to be available through 2040.

These new sources of funding include anticipated adjustments to state and federal gas tax rates based on historical trends and recommendations from two national commissions created by Congress; efforts to further leverage existing local sales tax measures; value capture strategies (e.g., tax increment financing); potential national freight program/freight fees; and passenger and commercial vehicle tolls for specific facilities. Other reasonably expected revenues in the future will come from innovative financing strategies, such as private equity participation. The Plan includes strategies to ensure that these sources of revenue are available, in accordance with federal guidelines.

2. Collaborating with Member Agencies, Jurisdictions and Stakeholders

Implementing the Plan will require SCAG to continue working closely with its member agencies, just as it did during its development. In particular, SCAG will need to work with the six county transportation commissions responsible for managing and prioritizing the portfolio of transportation investments in their respective counties. SCAG also must work with the California Department of Transportation (Caltrans), transit operators, port and airport authorities, and other implementing agencies. In addition, the agency will have to work with the cities and counties responsible for land use and transportation planning, and the air quality management districts in charge of monitoring conditions throughout the region. The agency will also have to work with key stakeholders to ensure the Plan benefits the economy and ensures social equity. To ensure that the region makes progress on its goals, SCAG will monitor its own progress toward achieving its targets and

will share this information with relevant partners and the public.

Ultimately there is a need to identify and secure funding to support deployment and implementation of the land use policies and strategies contained in the Plan in order to fully realize a sustainable regional vision. It will be essential to secure resources from the California Greenhouse Gas Reduction Fund, also known as Cap-and-Trade, in order to support the Plan's objectives. Additionally, innovative and emerging financing options such as Enhanced Infrastructure Finance Districts (EIFDs) will need to be explored and implemented by local jurisdictions.

3. Looking Ahead Beyond 2040

To fully address our region's long-term needs, SCAG must consider strategies and investments beyond what is contained in the "financially constrained" portion of the 2016 RTP/SCS – that is, the investment plan built on revenues that are reasonably expected over the life of the Plan. Chapter 9 provides an overview of potential programs and policies that may be implemented if additional funding becomes available in the future. These include:

- Long-term emission-reduction investments for trucks and rail
- Unfunded operational improvements
- Unfunded capital improvements
- Expansion of our region's High-Speed Train and commuter rail systems
- Increased use of active transportation
- Technology and new mobility innovations
- Strategic Express Lane network

SCAG expects that the 2016 RTP/SCS Strategic Plan will influence the next update to the RTP/SCS in 2020, and that strategies detailed above will eventually be incorporated into future investment plans.

Chapter 2 discusses the current transportation system in the region, how we use land today and also a graphic overview of progress achieved since the 2012 RTP/SCS. It will be followed in Chapter 3 with a review of challenges we face as a region. The first three chapters of the 2016 RTP/SCS set the stage for a discussion of the Plan's development in Chapter 4 and a comprehensive review of the Plan's strategies, programs and projects in Chapter 5.

THE RTP/SCS

WHAT'S REQUIRED

- Long-term vision of how the region will address regional transportation and land use challenges and opportunities
- Investment framework

FEDERAL

- Updated every four years to maintain eligibility for federal funding
- Long-range: 20+ years into the future
- Demonstrate transportation conformity
 - Regional emissions analysis
 - Financially-constrained (revenues = costs)
 - Timely implementation of transportation control measures
 - Interagency consultation and public involvement
- Must be developed in consultation/coordination with key stakeholders

STATE

- Achieve SB 375 requirements (reduce greenhouse gas emissions from cars and light trucks)

WHAT'S INCLUDED

- Vision, policies and performance measures
- Forecasts (e.g., population, households, employment, land use and housing needs)
- Financial plan
- List of projects (to be initiated and/or completed by 2040)
- Analysis of priority focus areas (e.g., goods movement and active transportation)