



SOUTHERN CALIFORNIA ASSOCIATION of GOVERNMENTS

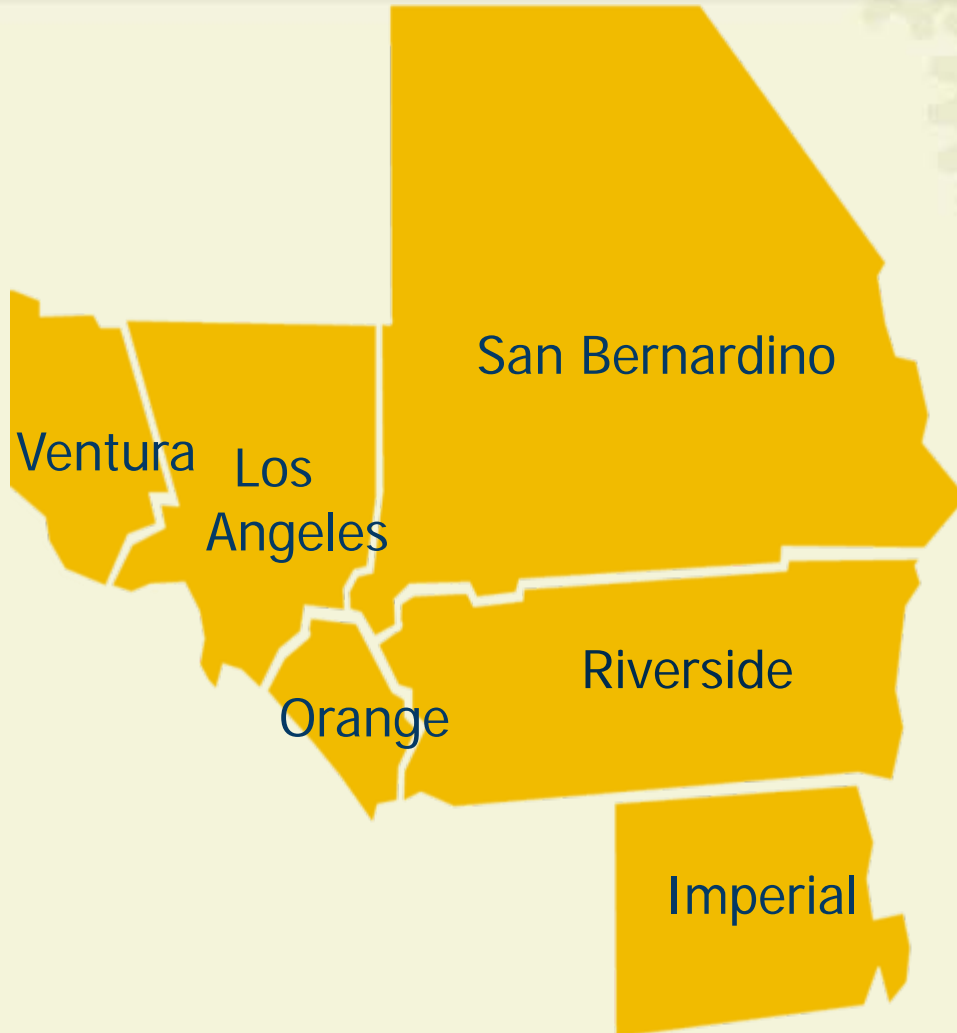
Greenhouse Gas Emissions and Transportation: New Planning Process and Modeling Practice in Southern California

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Executive Director

SCAG Region



SCAG Quick Facts



- Nation's largest Metropolitan Planning Organization (MPO) and Council of Governments (COG)
- Governed by a Regional Council of 84 local elected officials
- 6 counties and 191 cities
- 38,000 Square Miles

SCAG Quick Facts (continued)

- 16th largest economy in the world
- 6% of US population: 18 million (SCAG Region) vs. 300 million (US)
- 49% of State population
- 5.9 million households
- 14 million registered vehicles
- 11 million licensed drivers
- 10,457 freeway & carpool lane miles
- \$60,141 median household income



SCAG Deals With

Regional Issues



Transportation

Goods
Movement

Housing

Air Quality

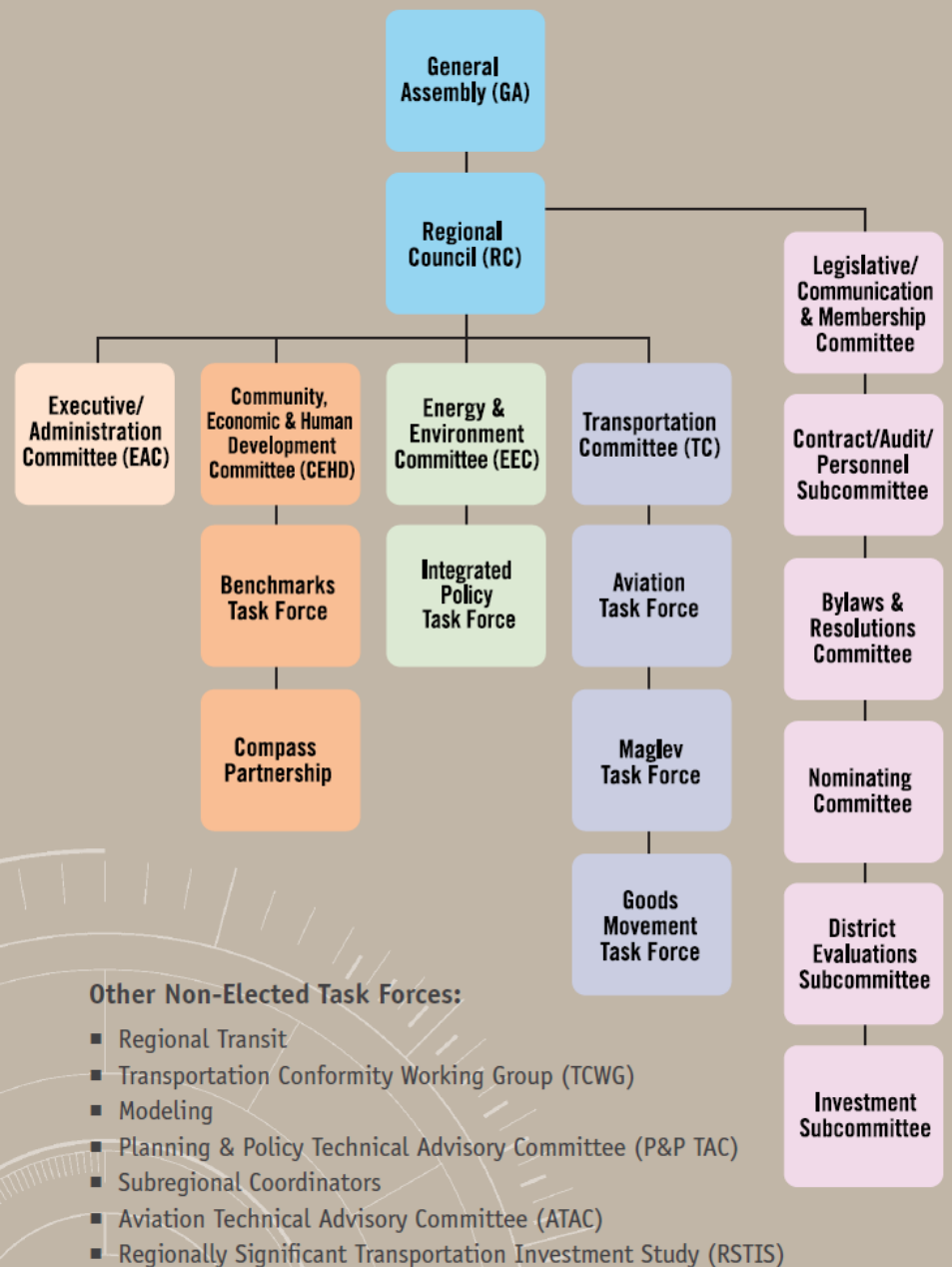
Land Use

Growth
Forecasting

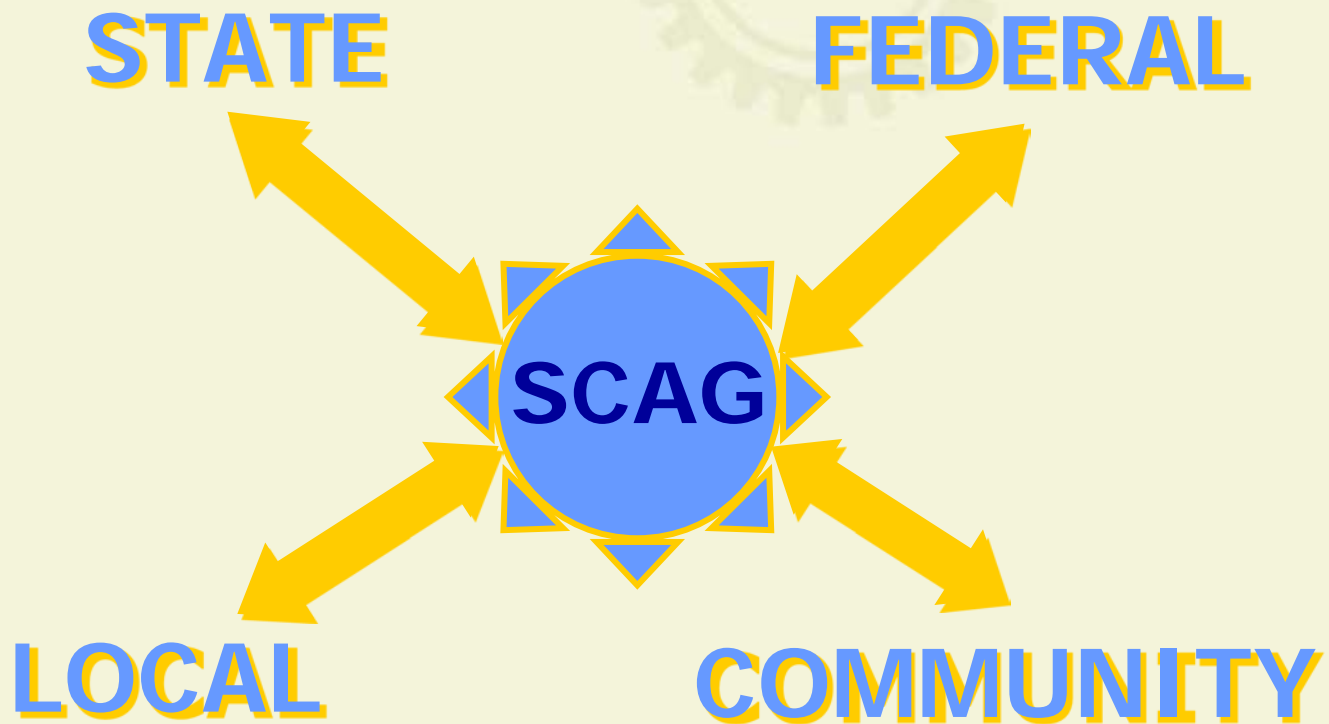
Funding

and More...

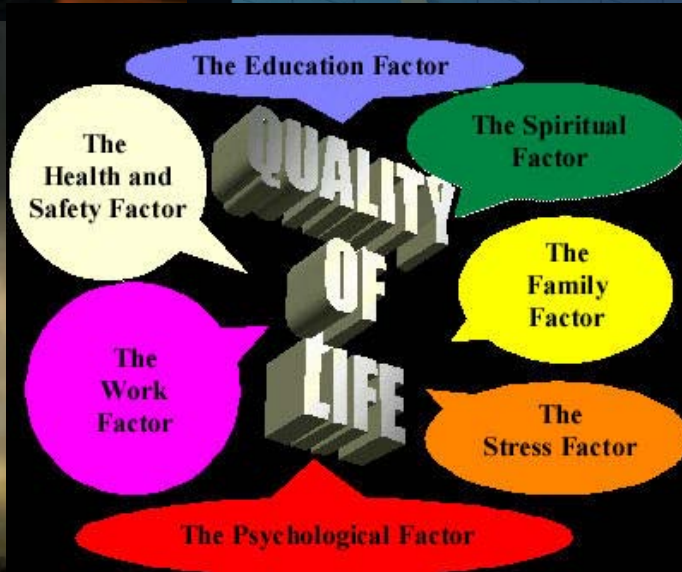
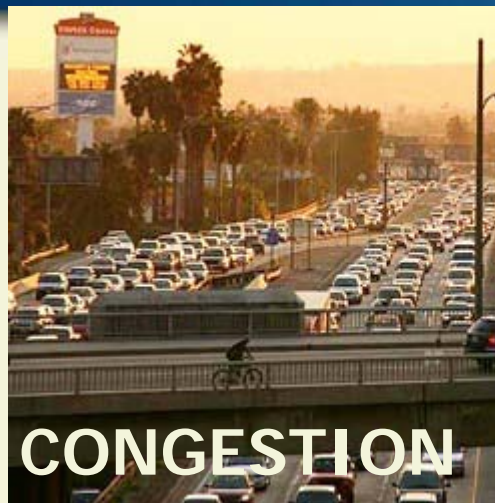
How is SCAG governed?



Focus on Collaboration



Regional Challenges: As Results of Imbalance among Mega Trends

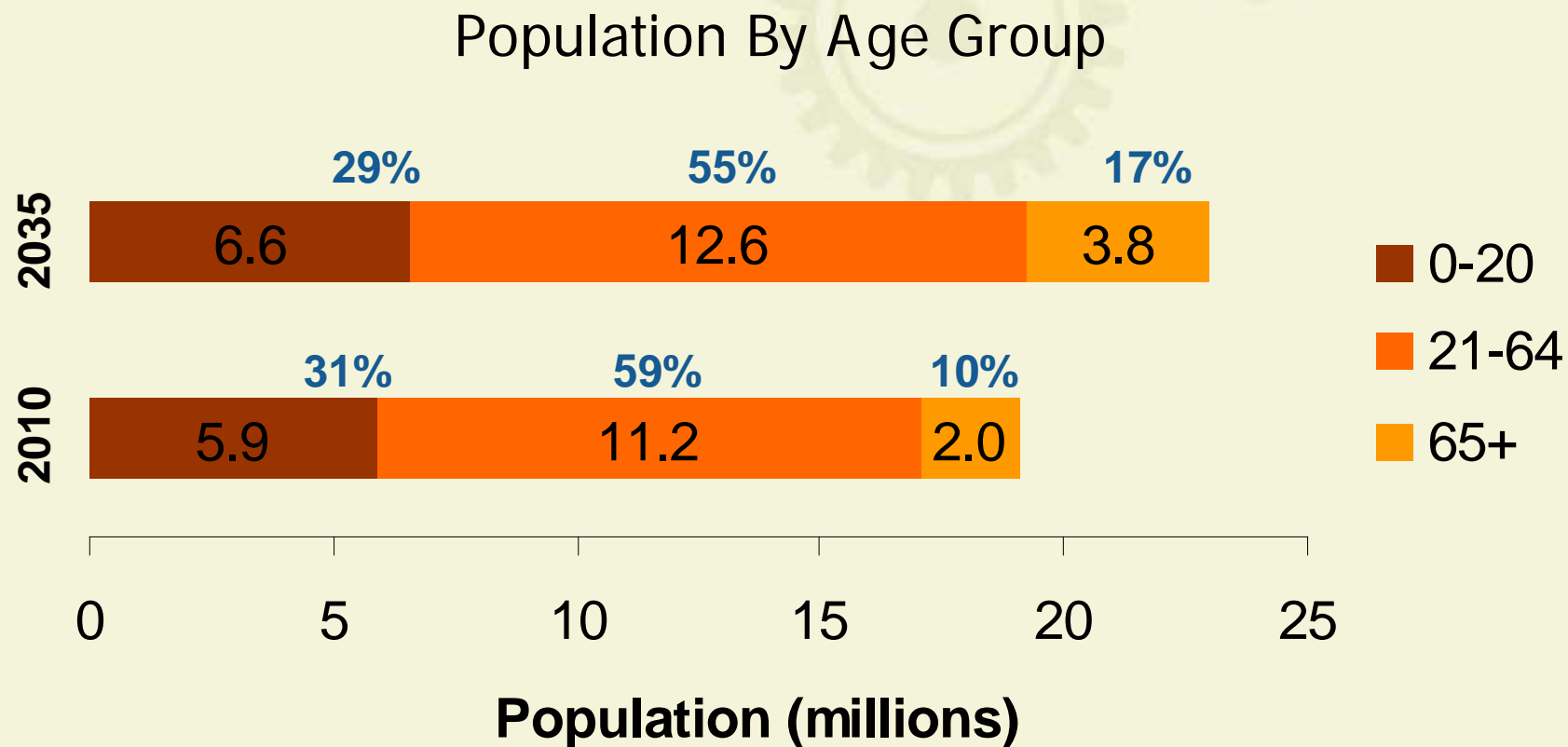


RTP/SCS Development – Rationale

- Responding to Emerging Trends
- Strategy Elements of the Preferred Alternative



Shift in Population Age Distribution



Note: Percentages do not add to 100% due to rounding

Source: SCAG, Local Input/General Plan Growth Forecast, March 2010



Housing: U.S. Demographic Trends

Household Type	1960	2005	2040
HH with Children	48%	32%	26%
HH without Children	52%	68%	74%
Single-person HH	13%	31%	34%

Source: Dr. Arthur C. Nelson, Presidential Professor & Director of Metropolitan Research, University of Utah.

Housing: U.S. Market Trends

	National Preference		Existing
Unit Type	Total	Share	SCAG Region
Attached	38%		42%
Apartments	14%	37%	
Condos, Coops	9%*	24%	
Townhouses	15%	39%	
Detached	62%		58%
Small Lot (<7,000 sf)	37%	60%	
Large Lot (>7,000 sf)	25%	40%	

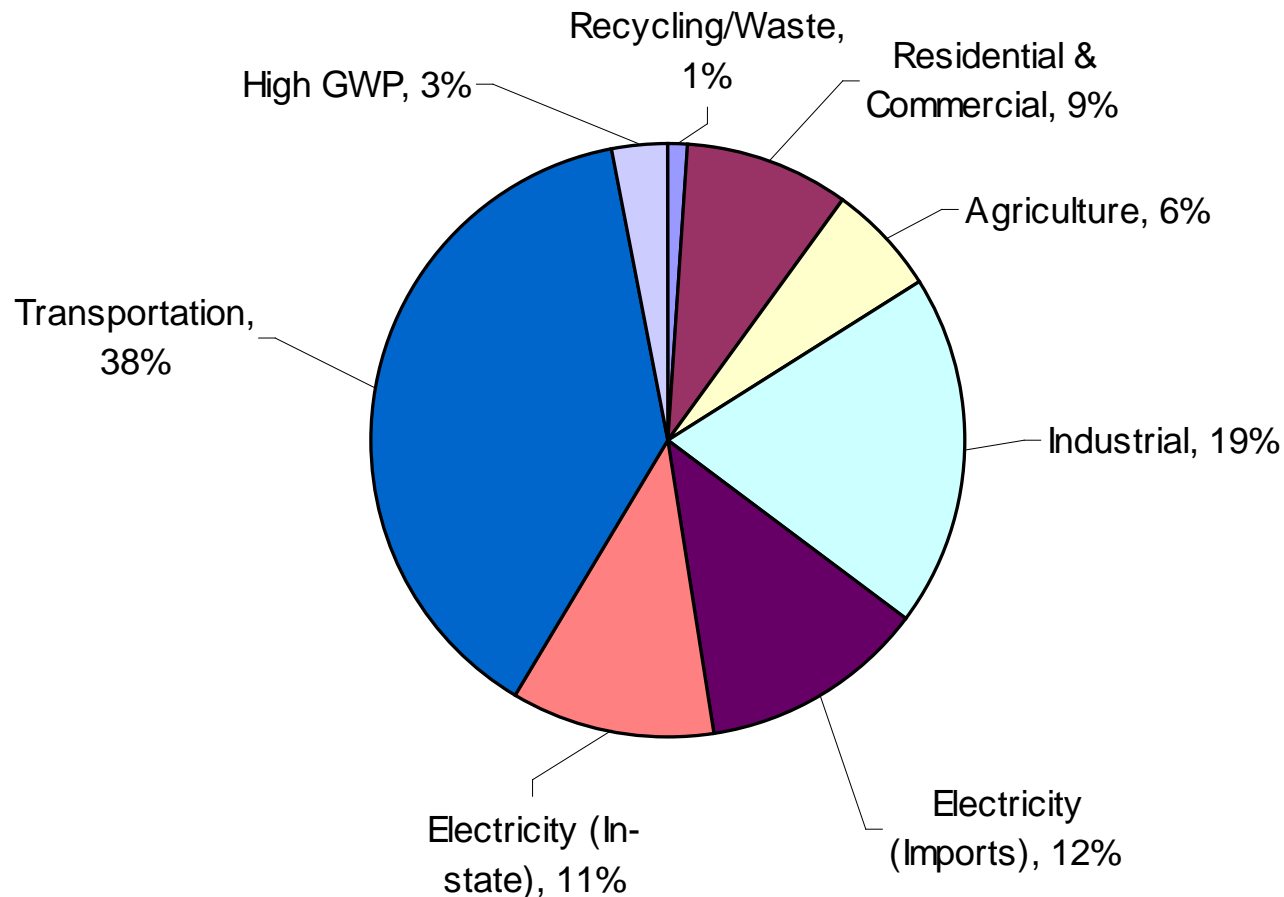
Sources: National housing preference based on a low range of surveys reviewed by Arthur C. Nelson "Leadership in a New Era," *Journal of the American Planning Association*, Fall 2006; existing per California Department of Finance, 2009

*Toll Brothers shifting product mix to 15% condominium; WSJ 12/06

Global Climate Change & New State Law: AB 32

- Assembly Bill (AB) 32, signed into law in 2006, outlines a comprehensive, multi-year program to reduce California's GHG emissions.
- Referred to as the Global Warming Solutions Act of 2006.
- Requires California to reduce GHG to 1990 levels no later than 2020, a reduction of approximately 28 percent.
- Set the stage for the passage of Senate Bill (SB) 375.

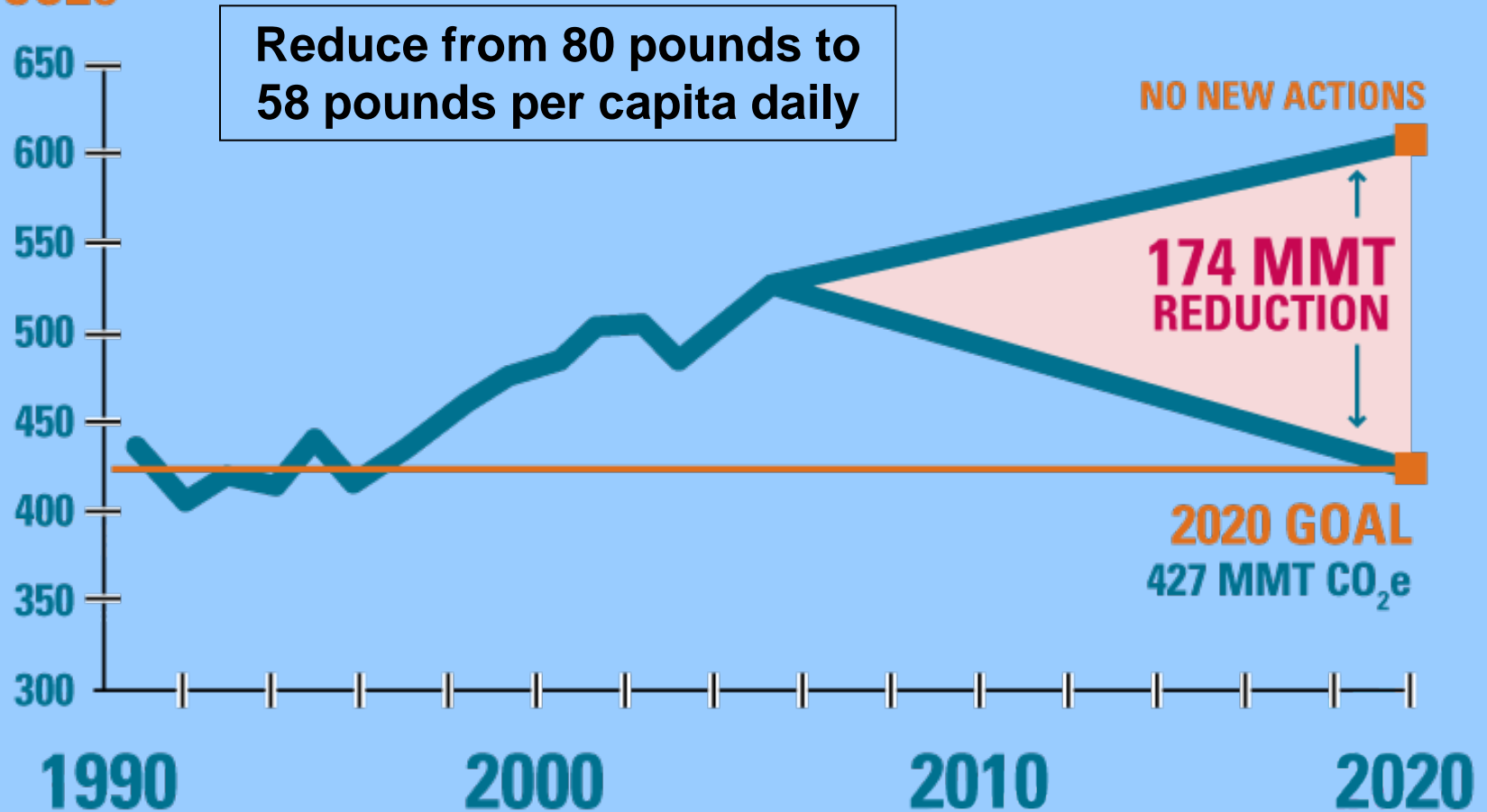
California GHG Emissions By Sector (2002-2004)



Source: California Air Resources Board

AB 32 GHG Reduction Goal

MMT CO₂e





Overall Land Use Strategy

1. Input from local up-to-date General Plans
2. Further build upon successful Compass Blueprint Projects
3. Additional Efforts at the Local Level (i.e. LA Downtown Expansion, San Bernardino BRT Corridor Redevelopment)
4. Maximizing HQTAs and other Opportunity Areas



A Regional Transit System

- Light Rail Expansions
 - BRT Expansion Region-wide
 - Exposition Line Light Rail Connecting Downtown Los Angeles And Santa Monica
- Light Rail Extension
 - Gold Line To The San Gabriel Valley
 - Westside Subway Extension Or “Subway To The Sea”
- Local Street Improvements For Future Transit Readiness
- Metrolink Enhancement & Expansions
- High Speed Rail Connecting Palmdale-Union Station-Anaheim
- Enhanced LOSSAN Line

Image courtesy of Metro © 2012 LACMTA



A Regional Transit System

Rail Transit Investments, 1990



DOI: 10.1111/j.1365-2745.2011.01901.x

A Regional Transit System

Rail Transit Investments, Today

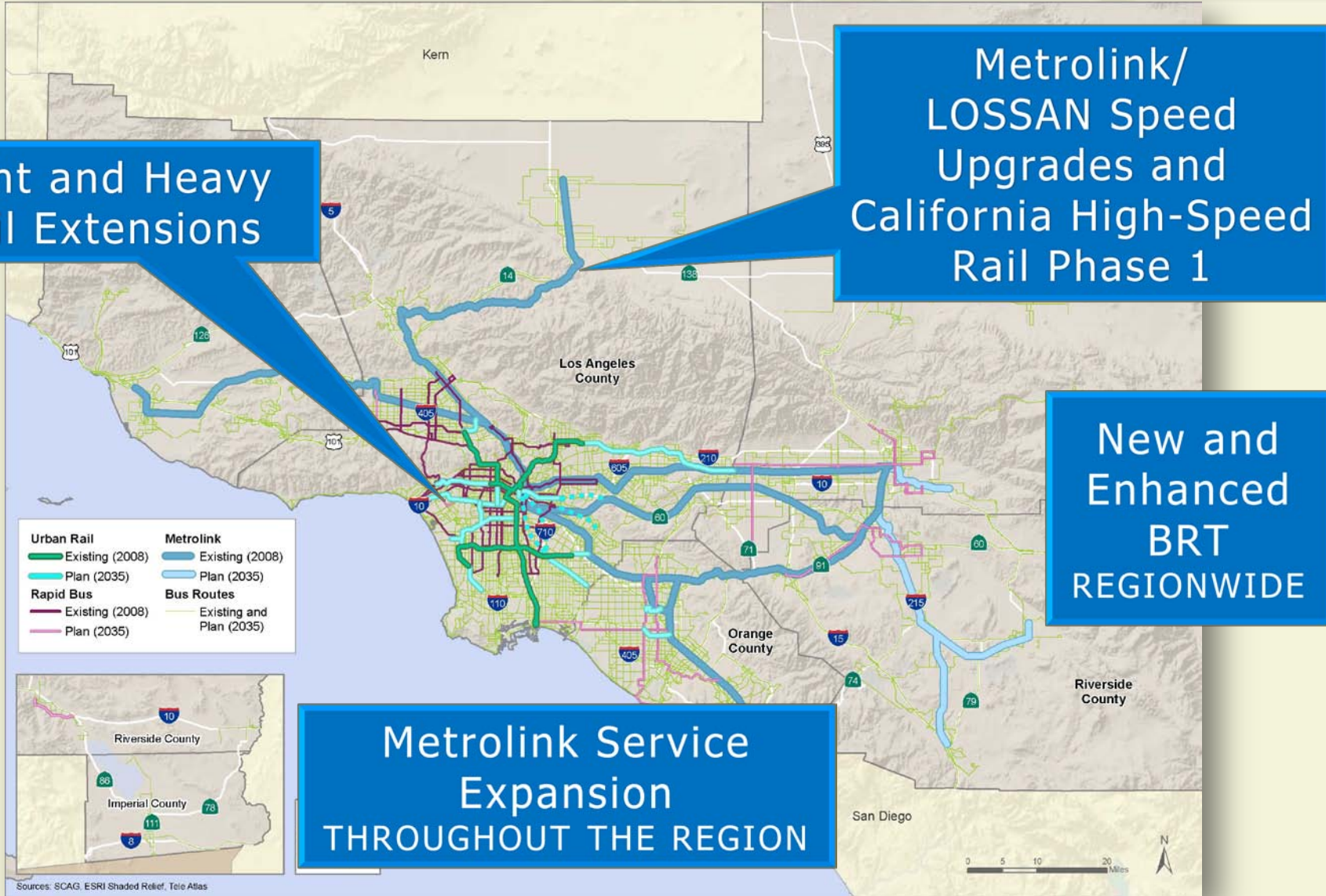


A Regional Transit System

Rail Transit Investments, 2035



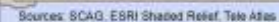
Rail and Additional Transit Investments (2035)



Transit-Ready Development

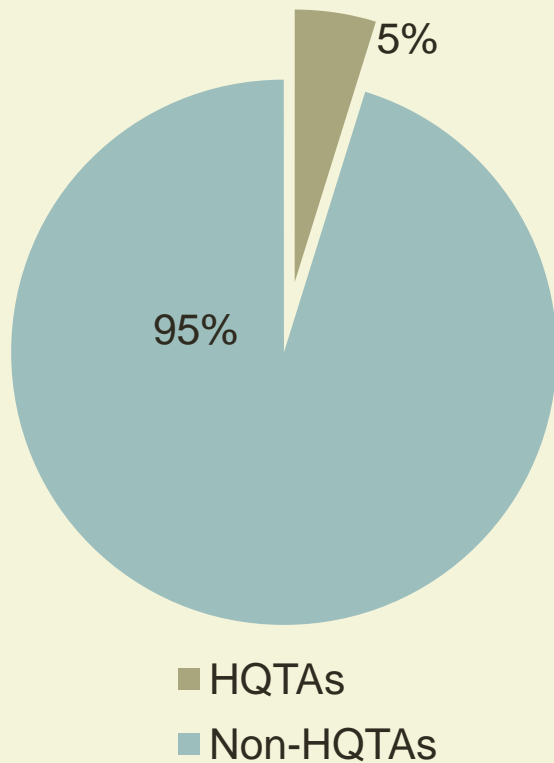
- Suitable for suburban and outlying areas
 - Mixed-use development
 - Complete community design
 - Neighborhood-oriented design
 - One-stop development



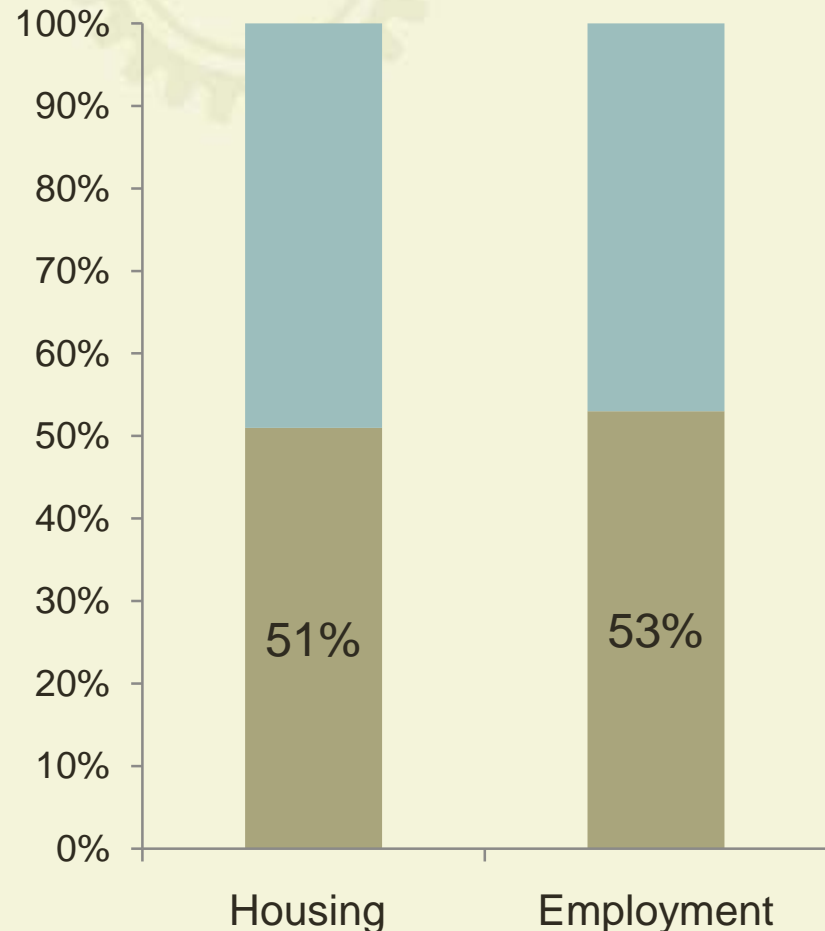


Focusing Growth within the HQTAs

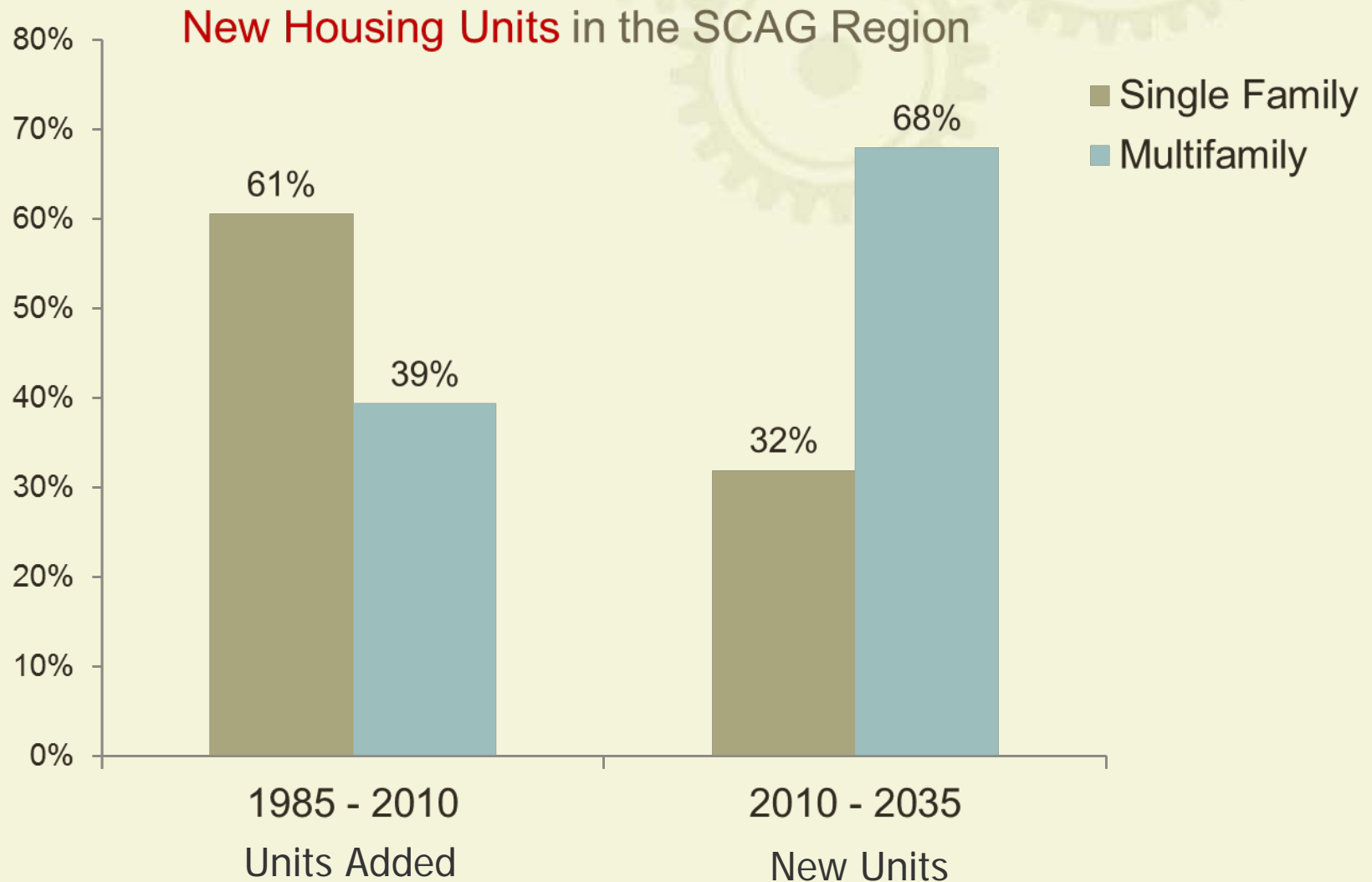
Based on 2012 RTP/SCS (2008 – 2035)



SCAG Region = 100%



Changing Housing Demand



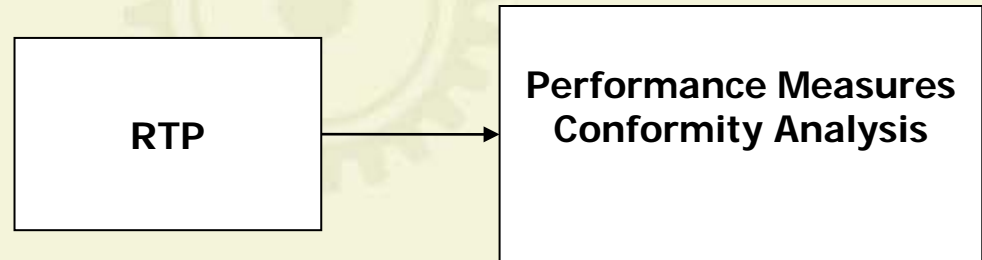
3 Key RTP/SCS Strategies

allocate
ONLY 13%
capital investment
to highways

focus over
50%
growth within
3%
land area

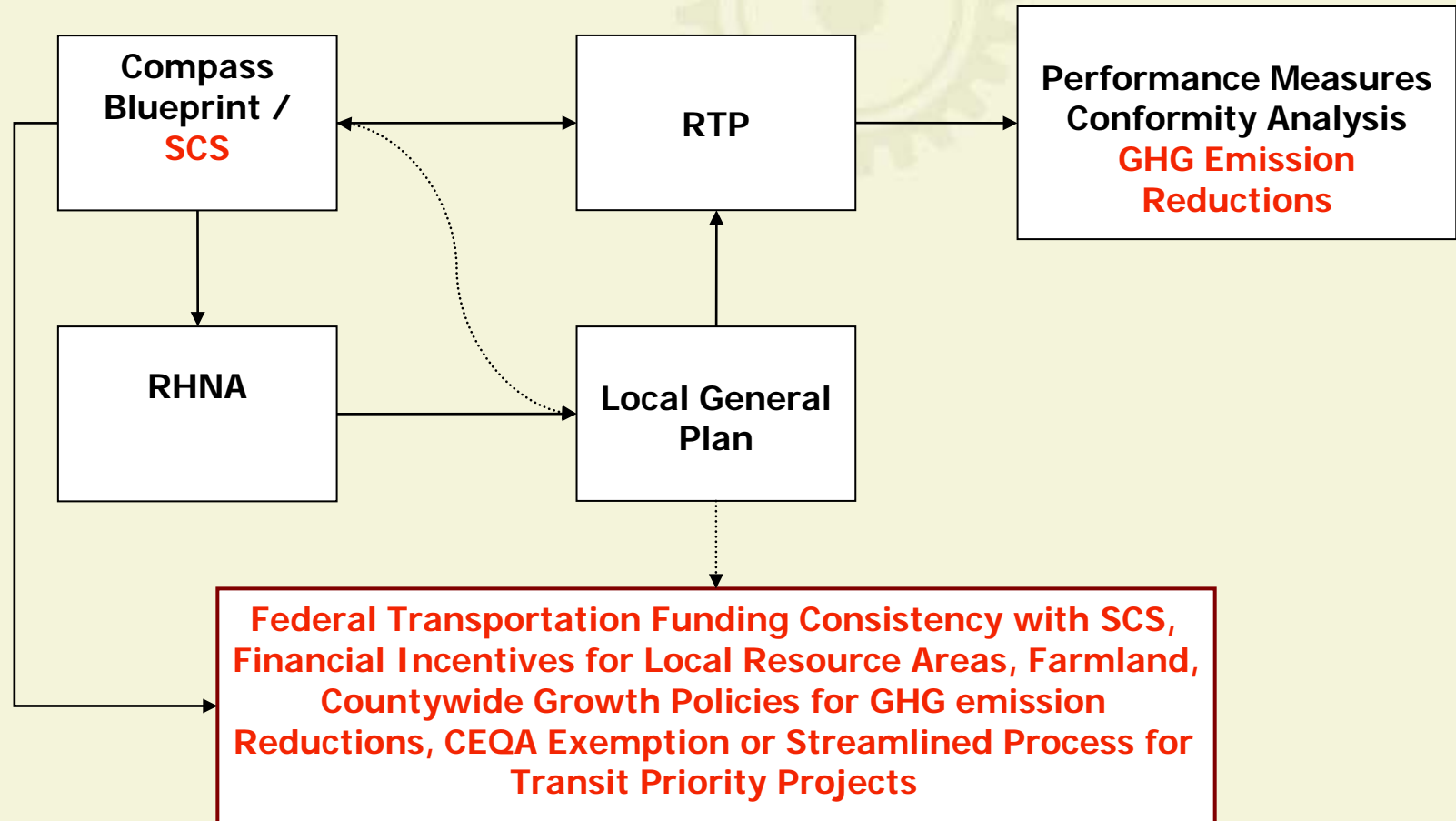
FROM 7:3
single- vs. multi-
family units
TO 3:7

Old Regional Planning Process



New Regional Planning Process:

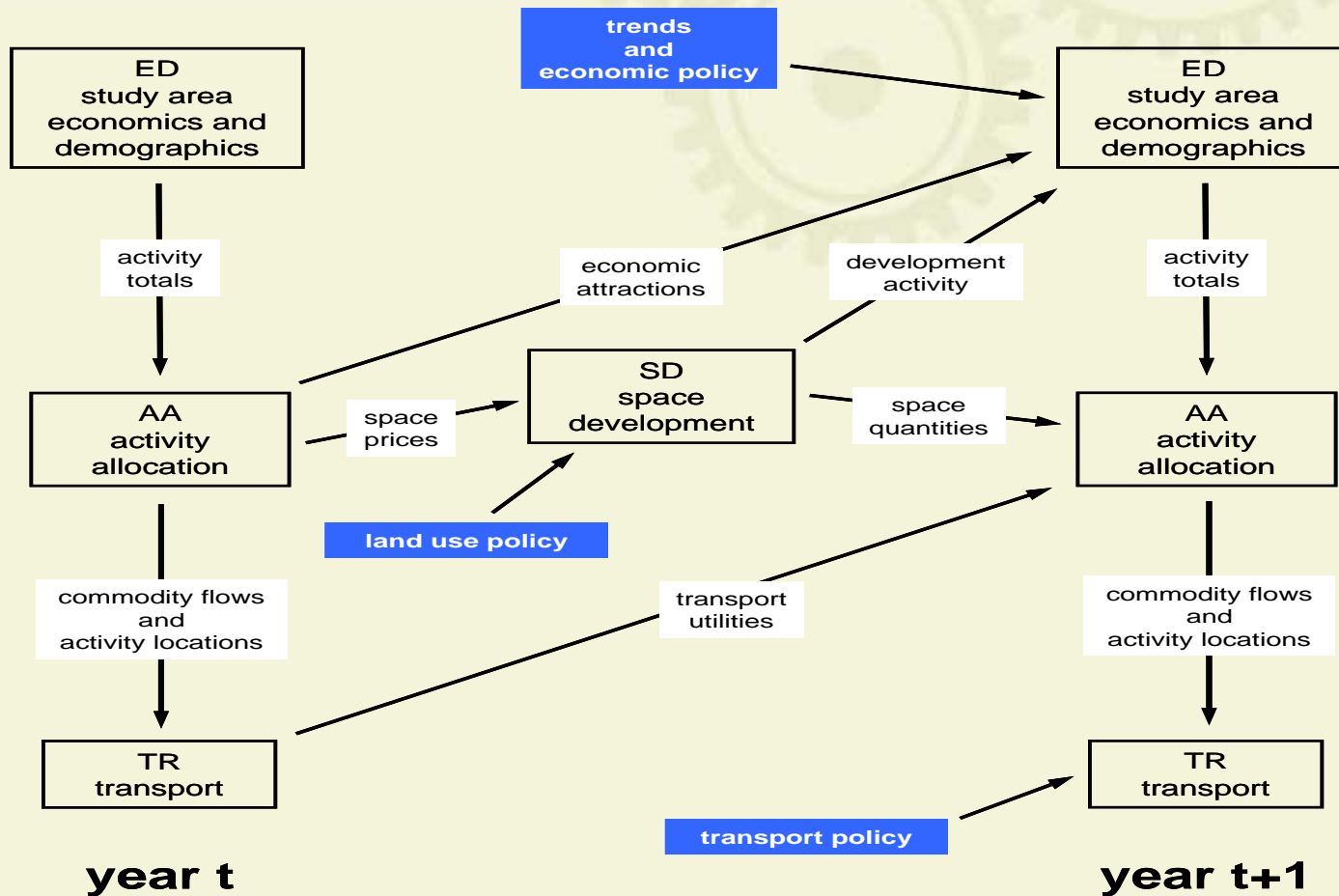
Integration of Land Use, Transportation and Housing



Old Regional Modeling Practice

- Trip Based Travel Demand Model

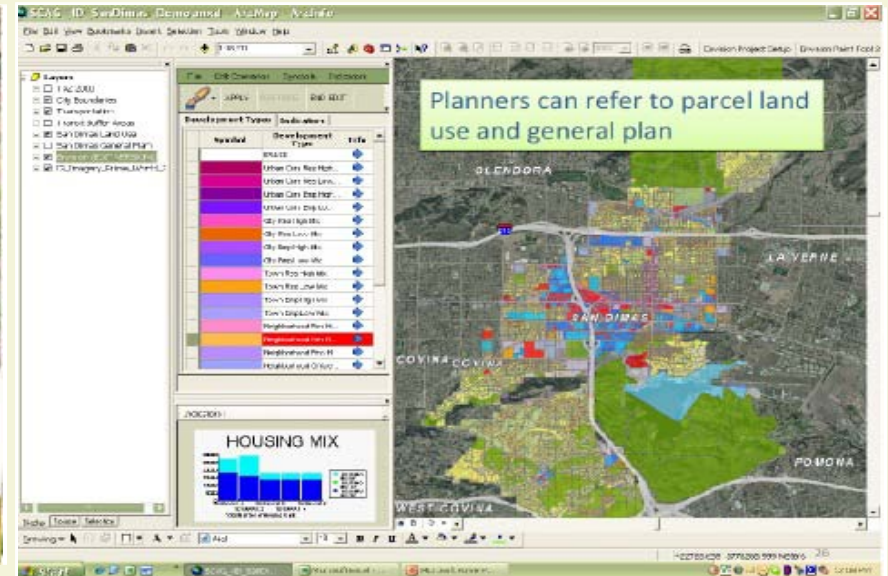
New Regional Modeling Practice: Integrated Model of Land Use and Transportation



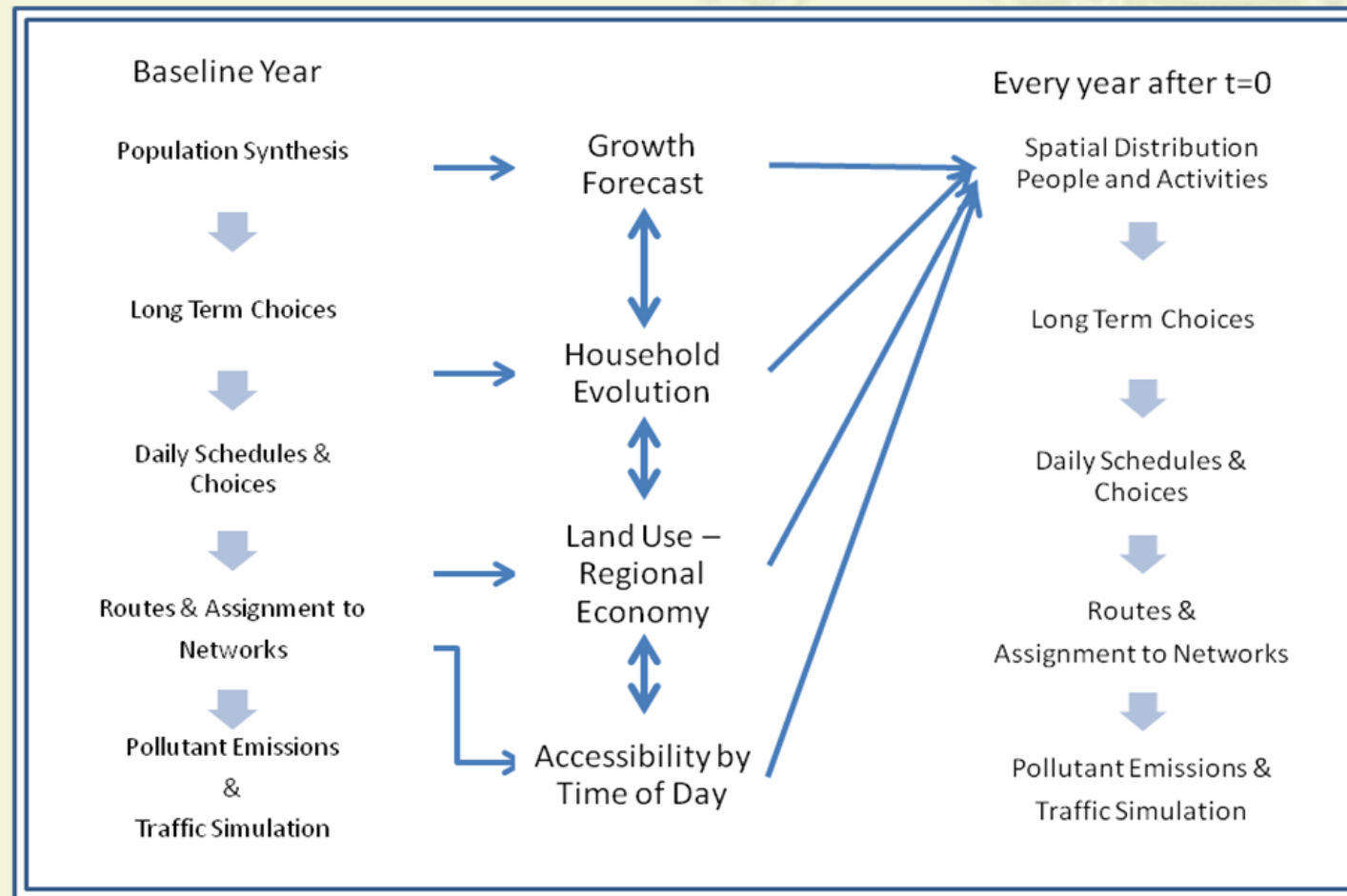
ED - study area economics and demographics
AA - activity allocation
SD - space development
TR - transport model

New Regional Modeling Practice: Sustainability Tool

- To collect data
- Local scenario planning tool for local jurisdictions to use
- To quantify the GHG reduction benefits at the smaller geographical level



New Regional Modeling Practice: Activity-Based Travel Demand Model



Source: Goulias et al, Simulator of Activities, Greenhouse Emissions, Networks, and Travel (SimAGENT) in Southern California, 2012.

SCAG's Adopted 2012-2035 RTP Exceeding Requirements

State Mandate SB 375 GHG Reduction

Year	Target	2012 RTP/SCS Results
2020	8%	9%
2035	13%	16%

Federal Mandate Air Quality Conformity

The 2012 RTP/SCS
**meets all air quality
conformity
requirements,**
including:
Fiscal constraint
Pollutant budgets



SCAG's Adopted 2012-2035 RTP Co-benefits

Mobility

Reduce per
capita travel
delay by
1/3

Location Efficiency

Over
twice
as many
households will
live in high-
quality transit
opportunity
areas

Economy

Over
500,000
jobs generated
on average
per year

Cost Effectiveness

\$2.90
return for
every \$1
spent



SCAG's Adopted 2012 -2035 RTP Co-benefits

Land
Consumption

Decrease by
over
400
square
miles

Infrastructure
Costs

Total
savings over
\$5 billion

Household
Savings

Annual
savings of
\$3,400
per
household
in 2035

Health
Outcome

Reduce
Health
incidences
by
95,000
in 2035

Summary

- The region is changing due to economic forces and demographic shifts, like Sao Paulo and the rest of the World.
- New federal and state laws are introduced into the current planning process.
- These result in a more integration between land use and transportation.
- Which will lead to better quality of life and a sustainable future.

Los Angeles County Vision Lennox - Before



County of Los Angeles Vision Lennox – After



City of Los Angeles Hollywood Fwy Central Park - Before



City of Los Angeles Hollywood Fwy Central Park - After



City of Montclair North Montclair Metrolink Area– Before



City of Montclair North Montclair Metrolink Area– After



City of Montclair North Montclair Metrolink Area– Before



City of Montclair North Montclair Metrolink Area– After



Los Angeles METRO Union Station Master Plan 1



Los Angeles METRO Union Station Master Plan 2



Los Angeles METRO Union Station Master Plan 3



IMAGINE THE FUTURE OF LOS ANGELES UNION STATION
AT THE CENTER OF A NEW **GARDEN CITY**

UNION STATION GARDEN DISTRICT 2050 AND THE STATION BUILDING

In this new Garden City, Union Station will no longer be a terminal but a transit and urban "hinge," linking Los Angeles in multiple directions via multi-modal transit while connecting the neighborhoods around Union Station through a network of performative gardens and urban courtyards.

The experience of Union Station could be defined as a lush courtyard that reorganizes the station activities around the tracks while creating an iconic arrival experience—sun shine, trees, people, powerful architecture, and art—Los Angeles



For more information please contact

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