Environmental Justice Workshop

June 30, 2011

Agenda

- Welcome / Introductions
- Purpose of the Workshop
- Overview of SCAG’s Environmental Justice responsibilities and past analysis
- Status of the 2012 Regional Transportation Plan and Sustainable Communities Strategy
- Proposed Technical Analysis Overview
- Comments / Discussion
Meeting Purpose and Objectives

- Overview of SCAG’s Environmental Justice responsibilities
- Summarize previous workshop comments
- Provide an orientation to the 2012 RTP/SCS
- Solicit input on the proposed environmental justice analysis for the 2012 RTP
- Request contact information and offer further dialogue

The SCAG Region

Map of SCAG Region
Environmental Justice

Fundamental Principles:

- To avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority populations and low-income populations.
- To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
- To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations.

- U.S. Department of Transportation, An Overview of Transportation and Environmental Justice

Guiding Documents:

- Title VI of the Civil Rights Act of 1964
- Executive Order 12898 (1994)
- CEQA Environmental Justice Guidance Under the National Environmental Policy Act (1997)
- US Department of Transportation Order (1997)
- Federal Highway Administration Order (1998)
- Memorandum: Implementing Title VI Requirements in Metropolitan and Statewide Planning (1999)
- FTA Circular Title VI Guidelines (2007)
- SCAG’s Public Participation Plan (2009)
SCAG’s Environmental Justice Policy

- Committed to being a leader in our analysis of the environmental, health, social, and economic impacts of our programs on minority and low-income populations in the SCAG region.
- Provides early and meaningful public access to decision making processes for all interested parties, including minority and low-income populations.
- Seeks out and considers the input of traditionally underrepresented groups, such as minority and low-income populations, in the regional transportation planning process.
- When disproportionately high and adverse impacts on minority or low-income populations are identified, SCAG takes steps to propose mitigation measures or consider alternative approaches for the SCAG region.
- Continues to evaluate and respond to environmental justice issues that arise during and after the implementation of SCAG’s regional plans.

SCAG’s Analysis

Framework:

- System-wide, region-wide analysis for RTP
- Compare RTP Plan (“the Plan”) vs. without the Plan (“Baseline” or No Project”)
- The core questions:
  - Are people worse or better off with or without the Plan?
  - Is there a disproportionate negative impact of the Plan on any group?
SCAG’s Analysis

Overview:
- Geographic Level: Traffic Analysis Zone (TAZ)
- Socioeconomic Variables
- Regional Transportation Plan
- Tools
  - SCAG Regional Travel Demand Model & Networks
  - Direct Transportation Impact Model (DTIM)
- Performance Indicators

SCAG’s Analysis

Socioeconomic Variables:
- Ethnicity/Race
- Minority (Hispanic, Asian & Pacific Islanders, African Americans, Native Americans, Others)
- Non-Hispanic White
- Income/Poverty Level
- Age
- Gender
- Disabled (per Census)
New in 2008 RTP:
- Non-work trip analysis
- Accessibility based on same travel time (30 minutes) for different modes
- Accessibility to parks
- County-level analysis

Results of SCAG’s 2008 Analysis

Overall Improvements In:
- Accessibility (employment and parks)
- Air pollution
- Travel time savings (transit and auto)
- Auto travel distance reductions
- Plan expenditures/investment (RTP)
- Sales and gasoline tax burdens
June 2010 Workshop Comments Summary

- Requested information on modeling
- Focus more on bicycling and walking for all ages
- Take steps to benefit impacted communities, not only mitigating adverse impacts
- Identify and quantify the primary environmental justice challenges in the region; identify baseline
- Bring public health to the forefront
- Address gentrification and both formal and informal economies
- Further discussion needed to disseminate information to the appropriate decision-makers

June 2010 Workshop Comments Responses

- SCAG is providing more information on modeling today
- SCAG staff reviewed suggested analysis areas and will comment today
- SCAG intends to address public health in SCS scenario development process
- Presentations have been received by SCAG policy and technical committees
Regional Transportation Plan (RTP)

Purpose of the RTP

- Required by Federal and State Laws
  - Without a federally approved transportation conformity determination, projects can be delayed or funding restricted
  - Transportation Projects must be included in the RTP (and FTIP) before they can be implemented

- Collective long-term vision to address our transportation needs and improve environment/quality of life
  - Balancing revenues with our investment needs
  - Prioritizing transportation investment decisions for the region
Key Requirements of the RTP

- Developed through a cooperative, collaborative and continuous (3C) process
- Financially constrained
- Transportation conformity (Clean Air Act)
- Comply with SB 375 (State law)
- 20-year horizon (minimum)

Draft 2012 RTP Goals

- Maximize mobility and accessibility
- Ensure travel safety and reliability
- Preserve and ensure a sustainable system
- Maximize transportation security
- Protect the environment, improve air quality, promote energy efficiency
- Encourage land use and growth patterns that complement transportation investments
Key Components of the RTP

Two Primary Plans:

- Financially Constrained Plan:
  - Used to demonstrate transportation conformity and compliance with the GHG reduction targets

- Strategic Plan:
  - Projects and strategies lacking funding, political consensus, adequate technical information, or beyond 2035 horizon year

Key Components of the RTP

- Existing System Performance/Needs Assessment
- Growth Forecast/Demographic context
- Policy Element (goals and policy objectives)
- Sustainable Communities Strategy (SCS) that achieves the GHG reduction targets
- Action Element (strategies, plans, and projects)
- Financial Element (costs and how do we pay)
- Plan performance (performance objectives, transportation conformity tests)
Draft 2012 RTP Status

- Completed list of projects for the Transportation Baseline (No Project Alternative)
- Finalizing project input from CTCs for financially constrained plan
- Focused on developing alternative transportation and land use scenarios

Critical Issues to Consider for RTP/SCS

- Transportation Funding
  - Single most funding challenge we face is our declining revenues while our needs are growing. How do we close the gap?
- Pricing Strategies
  - How can we reach consensus on implementing pricing strategies that help maximize the performance of the transportation system in an equitable manner?
- Goods Movement
  - How can we continue to maintain our region’s economic competitiveness and ensure quality of life?
Critical Issues to Consider for RTP/SCS

- **High Speed Rail**
  - How can we balance local concerns with potential benefits of HSR System?
  - No consensus has been reached on the state HSRT System
    - What system should we support and include in the RTP?

- **Clean Air Act/Transportation Conformity**
  - 14 non-attainment areas in 4 air basins administered by 5 air districts
  - Ever changing air quality requirements
  - Litigation

- **Meeting GHG Targets**
  - What are the best combination of strategies to meet the adopted 2020 and 2035 targets for the SCAG region

Sustainable Communities Strategy (SCS)
Purpose of the Sustainable Communities Strategy

- Per SB 375, RTP must now incorporate a SCS that will meet the regional Greenhouse Gas emission targets
- SCS to include eight required elements that integrate regional and local land use & housing strategies with transportation investments and transportation policies

Sustainable Communities Strategy
Element One – Land Use Designations & Densities

1. Identify the general location of land uses, residential densities, and building intensities within the region.
2. Identify areas sufficient to house all the population of the region, including all economic segments over the RTP planning timeframe.

3. Identify areas sufficient to house an 8-year projection of the regional housing need.

6. Consider state housing goals: expand housing opportunities, and accommodate the housing needs of Californians of all economic levels.

Sustainable Communities Strategy
Element Four – Transportation Needs

4. Identify a transportation network to service the transportation needs of the region.
**Sustainable Communities Strategy**

**Element Five – Resource Areas**

5. Consider the best, practical and available scientific information regarding resource areas and farmland within the region.

**Sustainable Communities Strategy**

**Element Seven and Eight – Development Pattern for Success**

7. Set forth a forecasted development pattern that reduces GHG emissions to achieve the final target.

8. Develop a Regional Transportation Plan that complies with federal air quality conformity requirements.
How Do We Measure Success?

ARB’s target for the SCAG region (relative to 2005)

- 8% per capita reduction in GHG by 2020
- 13% per capita reduction in GHG by 2035

Performance Measures

- VMT, VHT, mode split
- Congestion relief
- Economic impacts
- Land consumption
- Public health

Working with Our Partners

Outreach to Date

- One-on-one meetings with local jurisdictions on growth forecast
- 12 Planning Sessions with ~90% attendance from local jurisdictions
- Surveys to gather data needed to build SCS (transportation, land use, housing strategies)

Upcoming Outreach

- Public Workshops (Summer 2011)
- Elected Officials Workshops (Fall 2011)
- Public Hearings (Early 2012)

Check www.scag.ca.gov/rtp2012 for updates
Key 2012 RTP/SCS Milestones

- Develop, evaluate and discuss alternative scenarios
  ➔ thru September 2011
- Release Draft 2012 RTP/SCS for Public Comments
  ➔ December 2011
- Regional Council to adopt 2012 RTP/SCS
  ➔ April 2012
- Federal concurrence of transportation conformity determination
  ➔ June 2012

Stay Involved!

Attend upcoming RTP and SCS meetings

- Check RTP website for schedule.
- www.scag.ca.gov/rtp2012
Regional Transportation Demand Model

What is a Transportation Model?

- Mathematical Abstraction of Transportation System
- Tool to Forecast Future Travel
Typical Uses of Transportation Models

- Supports Transportation and Air Quality Planning
  - Transportation System Design
  - Transportation Facility Design
  - Evaluate Policy/Operational Decisions
  - Environmental Impact Analysis
  - Corridor Studies
  - AQMP/SIP Development
  - Transportation Conformity (Clean Air Act)

Strengths of Transportation Models

- Analytical Basis/Common Foundation for Regional Transportation Planning
- Ability to Test Policy and Planning Proposals
- Good Estimator of Incremental Changes and Relative Changes between Alternatives
- Interface with Environmental Analysis Tools
SCAG’s Modeling Role

- Develop/Maintain the Regional Model
- Develop/Utilize Adopted Growth Forecast
- Coordinate Regional Modeling Activities
- Apply Model to RTP/RTIP/Planning Projects
- Transportation Conformity Determination
- Promote/Support Subregional Models

Overview Of Modeling Process

- Conduct Travel Survey & Gather Data
- Develop Model Inputs:
  - Define Study Area
  - Define Traffic Analysis Zones (TAZs)
  - Develop Networks
  - SED/Land Use Data
- Model Calibration
- Model Validation
- Model Applications
Modeling Area

- SCAG’s Modeling Area
  - 38,000 square miles
  - 4 air basins
  - 6 counties (IM, OR, RV, SB, VN, LA)
  - 56 Regional Statistical Area (RSA)
  - 302 Community Statistical Area (CSA)
  - 11,000+ Traffic Analysis Zones (TAZ)

Model Components

- Transportation Model
  - Passenger Car
  - Transit
  - Non-Motorized
- Truck Model
- Pricing Model
- Air Passenger Model
- Air Cargo Model
- Air Quality Model (ARB’s EMFAC Model)
Model Structure

**Four-Step Model**

- **TRIP GENERATION**  
  ... How Often People Travel

- **TRIP DISTRIBUTION**  
  ... Destination of Travel

- **MODE CHOICE**  
  ... Mode of Travel

- **NETWORK ASSIGNMENT**  
  ... Trip Routing

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Modeling Process

**SCAG Trip-based Regional Travel Demand Modeling Process**

- **Economic and Accessibility**
  - Household Classification and Populations Synthesized
  - Household Networks
  - Land Use and Accessibility

- **Trip Generation Model**
  - External Trip Model
  - Regional Airport Demand Allocation Model
  - Heavy Duty Truck Model

- **Trip Distribution Model**
  - Mode Choice

- **Mode Choice Models**
  - Personal Trips by Trip Purpose and Income Group
  - Personal Trip Distances by Mode and Income Group

- **Network Assignment Model**
  - OD Trip Matrices by Vehicle and Time Period
  - Highway and Mode Level of Service

- **Congestion Models**
  - Greenhouse Gas and Climate Factors

Legend:
- Green: Input
- Orange: Module
- Yellow: Output

Note: Population Synthesized/Shadowed is a new component.
All the model modules and input datasets updated for 2006 model validation and 2012 RTP analysis.
Model Inputs & Outputs

Model Inputs
- Socio-Economic Data
- Transportation Networks
- External Data
- Special Generators
- Model Parameters

Model Outputs
- Trips by Mode
- Traffic Volumes
- Congested Speed
- Transit Volumes
- Bike/Ped Info
- Transportation Summaries

Model Products
- Examples of useful model outputs:
  - VMT
  - Traffic volumes
  - Hours of delay
  - Average speed
  - Mode share
- Examples of useful indicators derived from model output:
  - Mobility (speed and delay)
  - Accessibility (access to opportunities)
  - Reliability (day-to-day trip time variation)
  - Productivity (system performance during peak hours)
Next Generation Models

- Activity-based Model
- Traffic Simulation Model
- Land-Use Model

Proposed Technical Approach
Possible New Study Areas

- Rail related impacts
- Gentrification and displacement
- Air quality impacts along freeways and highly traveled corridors
- Impacts of pricing strategies
6.5% of SCAG households in 2008 are within buffer zone, and 6.6% in 2035
In 2008, 45% of SCAG Region population are Hispanic. In 500’ buffer zone, about 50% are Hispanic. This disproportion is carried to 2035.

The growth of Hispanic % between 2008 and 2035 is about 8% for both SCAG region and buffer zone.

<table>
<thead>
<tr>
<th>Race &amp; Ethnicity</th>
<th>SCAG Region</th>
<th>08-35</th>
<th>2035</th>
<th>500’ Buffer</th>
<th>08-35</th>
<th>2035</th>
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<tbody>
<tr>
<td>Hispanic</td>
<td>45%</td>
<td>53%</td>
<td>8%</td>
<td>50%</td>
<td>58%</td>
<td>8%</td>
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<tr>
<td>NH-White</td>
<td>34%</td>
<td>25%</td>
<td>-9%</td>
<td>28%</td>
<td>21%</td>
<td>-8%</td>
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<tr>
<td>NH-Black</td>
<td>7%</td>
<td>6%</td>
<td>-1%</td>
<td>7%</td>
<td>6%</td>
<td>-1%</td>
</tr>
<tr>
<td>NH-Asian</td>
<td>11%</td>
<td>12%</td>
<td>1%</td>
<td>12%</td>
<td>13%</td>
<td>1%</td>
</tr>
<tr>
<td>NH-Other</td>
<td>3%</td>
<td>3%</td>
<td>0%</td>
<td>3%</td>
<td>3%</td>
<td>0%</td>
</tr>
</tbody>
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Of 106,504 households growth in buffer zone, 12.5% are lowest-income households, which is 1.5% high than SCAG region.

<table>
<thead>
<tr>
<th>Low-Income Households</th>
<th>SCAG 08-35</th>
<th>Buffer 08-35</th>
<th>DIFF 08-35</th>
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<tbody>
<tr>
<td>Income Quintile</td>
<td>1,479,078</td>
<td>106,504</td>
<td></td>
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<tr>
<td>First (lowest 20%)</td>
<td>11%</td>
<td>12%</td>
<td>1%</td>
</tr>
<tr>
<td>Second (20%-40%)</td>
<td>18%</td>
<td>18%</td>
<td>0%</td>
</tr>
<tr>
<td>Third</td>
<td>20%</td>
<td>20%</td>
<td>0%</td>
</tr>
<tr>
<td>Fourth</td>
<td>23%</td>
<td>23%</td>
<td>0%</td>
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<tr>
<td>Fifth</td>
<td>28%</td>
<td>26%</td>
<td>-2%</td>
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</table>
Elderly (aged 65 and older)

- Share of the elderly population is about the same between SCAG region and 500’ buffer

![Bar chart showing elderly population share between 2008 and 2035 between SCAG region and buffer zone.](chart)

2008 Job Share

- About 13.5% of SCAG region jobs are within the buffer zone
- Below shows 2008 job share by sectors for SCAG region and buffer zone

![Bar chart showing job share by sectors for SCAG region and buffer zone in 2008.](chart)
Job Growth

- Of 270,000 job growth in buffer zone, 24% are business service jobs, which is 2% high than that of SCAG region.
- There is no significant difference to other sectors

<table>
<thead>
<tr>
<th>Sector</th>
<th>SCAG 08-35</th>
<th>Buffer 08-35</th>
<th>DIFF 08-35</th>
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<tbody>
<tr>
<td>Jobs Growth</td>
<td>1,995,221</td>
<td>269,658</td>
<td></td>
</tr>
<tr>
<td>%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Wholesale</td>
<td>4%</td>
<td>4%</td>
<td>0%</td>
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<tr>
<td>Retail</td>
<td>9%</td>
<td>9%</td>
<td>0%</td>
</tr>
<tr>
<td>Finance</td>
<td>4%</td>
<td>4%</td>
<td>0%</td>
</tr>
<tr>
<td>Business Serv.</td>
<td>22%</td>
<td>24%</td>
<td>2%</td>
</tr>
<tr>
<td>Education/Health</td>
<td>28%</td>
<td>27%</td>
<td>0%</td>
</tr>
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Air Quality Impact - PM10

- PM10 emission in buffer zone is 11% - 12% of total emission of SCAG regional
- PM10 emission in buffer zone is slightly higher (about 2%) for Plan than for the Baseline

<table>
<thead>
<tr>
<th>Year</th>
<th>SCAG</th>
<th>Buffer</th>
<th>Buffer/SCAG</th>
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</thead>
<tbody>
<tr>
<td>2035 Baseline</td>
<td>23,819</td>
<td>2,623</td>
<td>11%</td>
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<tr>
<td>2035 Plan</td>
<td>22,890</td>
<td>2,674</td>
<td>12%</td>
</tr>
<tr>
<td>Plan - Baseline</td>
<td>-930</td>
<td>51</td>
<td></td>
</tr>
</tbody>
</table>

*EMISSION IN KILOGRAMS*
Open for comments

Please fill out a public comment card to accompany your verbal comment.

Please make sure to sign the sign-in sheet before you leave.
For more information please contact

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THANK YOU

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS
WWW.SCAG.CA.GOV