SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

Main Office
818 West Seventh Street
12th Floor
Los Angeles, California
90017-3435

t (213) 236-1800
f (213) 236-1825

www.scag.ca.gov

Officers
President
Larry McCallon, Highland

First Vice President
Pam O'Connor, Santa Monica

Second Vice President
Glen Becerra, Simi Valley

Executive/Administration Committee Chair
Larry McCallon, Highland

Policy Committee Chairs
Community, Economic and Human Development
Bill Jahn, Big Bear Lake

Energy & Environment
Margaret Clark, Rosemead

Transportation
Greg Pettis, Cathedral City

August 4, 2010

Mary Nichols
Chair, California Air Resources Board
California Air Resources Board
1001 "I" Street
P.O. Box 2815
Sacramento, CA 95812

Dear Chairwoman Nichols:

RE: ARB Comments Received at the June 24th Workshop Regarding GHG Target Setting

Thank you for your and your staff's on-going collaboration with SCAG and other Metropolitan Planning Organizations (MPOs) throughout California on the implementation of SB 375. Your staff has tirelessly worked with us to understand the unique challenges and opportunities of each region as we prepare to embark on the creation of the first round of Sustainable Communities Strategies (SCS).

I am writing at this time to clarify comments you received at the June 24th Workshop and urge your continuing support and understanding on issues facing the SCAG region. In particular, I would like to highlight and underscore several matters that have been discussed at length with your staff through the process of developing sketch scenarios and submitting information to you to support your decision on regional greenhouse gas emission reduction targets for the September Board meeting.

After more than 100 public workshops in our region, SCAG has developed and tested scenarios that are both ambitious and achievable, as suggested by the Regional Targets Advisory Committee (RTAC). In so doing, SCAG has tested measures that would move the SCAG region significantly beyond the status quo in land use and transportation. Further, while acknowledging that no tools are perfect, SCAG has used the best tools available to measure the expected benefits of these policies.

SCAG has reviewed the comments you have received for the June 24th Workshop suggesting that the large MPOs around the State, particularly SCAG, have fallen short in the process of developing scenarios and estimating results. SCAG has endeavored to work closely with all stakeholders, including the environmental community, and respect the perspective they

SOUTHERN CALIFORNIA

ASSOCIATION of GOVERNMENTS

Main Office

818 West Seventh Street

12th Floor

Los Angeles, California

90017-3435

t (213) 236-1800

f (213) 236-1825

www.scag.ca.gov

Officers

President
Larry McCallon, Highland

First Vice President
Pam O'Connor, Santa Monica

Second Vice President
Glen Becerra, Simi Valley

Executive/Administration Committee Chair

Larry McCallon, Highland

Policy Committee Chairs

Community, Economic and Human Development
Bill Jahn, Big Bear Lake

Energy & Environment
Margaret Clark, Rosemead

Transportation
Greg Pettis, Cathedral City

bring to this process. SCAG has pursued on-going dialogue with key stakeholders, both before and since your receipt of target scenario data in May.

In short, comments transmitted to ARB suggesting that SCAG's target scenario work does not test ambitious measures stems from fundamental misunderstandings about the planning process and legal authorities within the SCAG region. SCAG Regional Council and staff are committed to implementing SB 375 as enacted.

Attached to this letter, is a brief description and justification for each of the measures SCAG has tested. SCAG is also providing a description of the modeling and measurement techniques employed and a justification for their use in this process. SCAG asks that you and your staff consider this as supporting material to our earlier submittal of scenario information. Finally, at the June 24th workshop, SCAG committed to further collaboration with ARB staff and the other large MPO's including further analysis and testing for 2035 GHG targets.

SCAG has discussed with you and your staff previously the intent for meeting the GHG target through the SCS, and not relying on the Alternative Planning Strategy (APS). This preference for the SCS over the APS is also reflected in the RTAC's recommendations to you. Only the SCS will result in GHG reduction measures that are real and implementable. While it is admirable to set '"stretch" goals for planning, within the construct of SB 375, SCAG Board and staff find it critical to set a target that will keep our region on a path to an SCS.

SCAG urges your continued acknowledgement that the SCS is one of many requirements to be coordinated with the federally mandated Regional Transportation Plan (RTP) process. While SCAG continues to embrace the objective integrated planning and of incorporating greenhouse gas reduction strategies into the RTP, we underscore that the SCAG region's transportation plan is the result of a complex and deliberate process that must be responsive to a multitude of requirements, funding partners, and stakeholders. As you know, our region's RTP serves six county transportation commissions. Further, the SCAG region is comprised of four air basins, administered by five air districts, and includes fourteen non-attainment areas for which federal conformity must be demonstrated. To test measures that are not feasible, and could not be included in a constrained RTP, would likely be counterproductive to the goals of SB 375 and could serve to alienate key stakeholders, compromise other objectives of the RTP, and jeopardize significant federal transportation funding coming to the region.

Again, we are committed to a successful first round of implementation of SB 375 and will continue to work closely with you and your staff on finalizing

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

Main Office

818 West Seventh Street
12th Floor
Los Angeles, California
90017-3435

t (213) 236-1800
f (213) 236-1825

www.scag.ca.gov

Officers

President
Larry McCallon, Highland

First Vice President
Pam O'Connor, Santa Monica

Second Vice President
Glen Becerra, Simi Valley

Executive/Administration Committee Chair

Larry McCallon, Highland

Policy Committee Chairs

Community, Economic and Human Development
Bill Jahn, Big Bear Lake

Energy & Environment
Margaret Clark, Rosemead

Transportation
Greg Pettis, Cathedral City

ambitious and achievable targets. We thank you for your understanding and on-going assistance. Please contact me at 213-236-1944 with any concerns or questions you may have.

Sincerely,

Hasan Ikhrata
Executive Director

Attachment

CC
James Goldstene, Executive Officer
Tom Cackette, Chief Deputy Executive Officer
Lynn Terry, Deputy Executive Officer
SCAG Regional Council

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

Main Office

818 West Seventh Street
12th Floor
Los Angeles, California
90017-3435

t (213) 236-1800
f (213) 236-1825

www.scag.ca.gov

Officers

President
Larry McCallon, Highland

First Vice President
Pam O'Connor, Santa Monica

Second Vice President
Glen Becerra, Simi Valley

Executive/Administration Committee Chair

Larry McCallon, Highland

Policy Committee Chairs

Community, Economic and Human Development
Bill Jahn, Big Bear Lake

Energy & Environment
Margaret Clark, Rosemead

Transportation
Greg Pettis, Cathedral City

ATTACHMENT
DESCRIPTION/JUSTIFICATION FOR MEASURES

LAND USE GROWTH

We believe our land use scenarios adequately reflect an appropriate range of assumptions that test the limits of ambitious and achievable leading to our recommended target. The Compass Blueprint 1 scenario, not only includes "current general plans and recent land use policies," but incorporates potential outcomes of dozens of innovative local and regional partnerships located throughout the region intended to reduce VMT and vehicle trips. In most cases, these Compass Blueprint Demonstration projects have not yet been adopted into local plans and do not have the resources to support their development. We are confident, however, that the requirements of SB375 may provide cities the incentive to align their plans accordingly, so these were included in our ambitious and achievable scenario. The Compass Blueprint 2 scenario includes major inter-county population and employment shifts that are infeasible without significant policy intervention to counteract market forces that have shaped our region for decades. We believe for a target-setting exercise it makes sense to understand the implications of such measures on GHG emissions, but, they should not be reflected in an actual target. We will continue working with our jurisdictions to test the feasibility of such monumental changes in the future.

TRANSPORTATION

The range of transportation scenarios that SCAG tested in recommending GHG reduction targets to ARB are consistent with the goal of establishing 'ambitious and achievable' targets. SCAG is a complex region with a multitude of entities responsible for constructing, managing and operating our multi-modal transportation system, including six county transportation commissions, four Caltrans Districts, over fifty independent transit operators, largest port complex in the nation, in addition to 189 individual cities. In designing the scenarios, SCAG must recognize and acknowledge this complexity so as to keep the scenarios grounded in reality. Furthermore, in developing these scenarios, SCAG also recognized the constraint placed by the 'color of money' as well as existing commitments to transportation investments, such as those made to the voters in passing local sales tax measures. Under this context, SCAG believes that the scenarios we tested 'pushed the envelope'.

Road Network: Road improvements considered in the scenarios primarily consisted of projects that are committed and included in our current RTIP and

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

Main Office

818 West Seventh Street
12th Floor
Los Angeles, California
90017-3435

t (213) 236-1800
f (213) 236-1825

www.scag.ca.gov

Officers

President
Larry McCallon, Highland

First Vice President
Pam O'Connor, Santa Monica

Second Vice President
Glen Becerra, Simi Valley

Executive/Administration Committee Chair

Larry McCallon, Highland

Policy Committee Chairs

Community, Economic and Human Development
Bill Jahn, Big Bear Lake

Energy & Environment
Margaret Clark, Rosemead

Transportation
Greg Pettis, Cathedral City

RTP with a number of addition of HOT Lanes. Growth in VMT continues to outpace the growth in population into the foreseeable future. On the other hand, our road network has remained relatively stagnant since the 1980s. SCAG recognizes this challenge. At the same time, SCAG also recognizes the induced VMT increases attributed to new road construction. The proposed Road Network enhancement considers a proper balance to optimize these opposing goals.

Demand Management (TDM): SCAG region already enjoys one of the highest work-at-home and telecommute rates. So, there is a limit to pushing additional TDM measures to further expand the TDM share. Currently planned TDM share to reach 13% of work trips in 2035 is already ambitious. SCAG recognizes that increasing this by another 20% is highly ambitious.

System Management (TSM): An on-going theme of SCAG's transportation plan has been to ensure we are getting the most out of our system. SCAG believes this can be realized by investing in technology, such as signal synchronization, ramp-metering, traveler information, changing message signs etc. The proposed efficiency gains assumed in the scenarios, while ambitious are achievable.

Bike and Pedestrian Improvements: SCAG recognizes the potential of expanding Bike and Pedestrian infrastructure to service shorter trips, particularly, in compact development settings. So, the aggressive scenario actually considered increasing this mode share by over 50%. This is an ambitious goal that will not only require large increase in capital investments, but also a fundamental change commitment at individual levels.

Transit: In the face of current trend where transit funds are being cut across the board, it is difficult to consider any scenario that would increase transit services. However, for this exercise we assume that this trend will not continue indefinitely into the long term future. So, the aggressive scenario assumes 20% increase in transit services. This would require unrealistically high levels of increase in transit funding levels. Unless dramatic changes are made in how we fund our transit services, this scenario would be extremely hard to achieve the time frame proposed.

Pricing: Over the long haul, pricing strategies are promising. However, under the current economic and political climate, the pricing scenarios SCAG considered range from achievable to highly ambitious. SCAG currently has a major study underway to study congestion pricing. SCAG expects to incorporate the results of this study in the 2012 RTP.

MODELING

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

Main Office

818 West Seventh Street
12th Floor
Los Angeles, California
90017-3435

t (213) 236-1800
f (213) 236-1825

www.scag.ca.gov

Officers

President
Larry McCallon, Highland

First Vice President
Pam O'Connor, Santa Monica

Second Vice President
Glen Becerra, Simi Valley

Executive/Administration Committee Chair

Larry McCallon, Highland

Policy Committee Chairs

Community, Economic and Human Development
Bill Jahn, Big Bear Lake

Energy & Environment
Margaret Clark, Rosemead

Transportation
Greg Pettis, Cathedral City

The following is to provide additional information/clarification regarding SCAG's trip-based model."

The SCAG's Regional Travel Demand Model as used for the Draft Target Setting exercise can be best described as an **advanced trip-based model**. General description and summary documentation of the last completed model update and validation to 2003 conditions is available via SCAG's website. This version of the SCAG model contains several advanced features, including:

- **Auto ownership model**, sensitive to several household characteristics (income, size, number of workers and age of the head of household), and non-auto accessibility.
- **Detailed segmentation of trip purposes**, and stratification of the two work purpose trips by workers' income (trip distribution) and household income (mode choice).
- Use of mode choice **log sums as the accessibility measure** of the work trip distribution models to account for total cost (more than travel time) and all modes of travel.
- A mode choice model sensitive to non-motorized travel options and several types of transit services in addition to drive alone and carpool options.
- Use of **generalized cost functions for trip assignment**, which include travel time, travel cost (such as tolls) and distance-based costs.
- Use of a multi-path transit skimming and assignment algorithm, based on cost functions that includes in-vehicle time, out-of-vehicle time, and fare costs.
- Highly detailed and accurate representation of the highway and transit networks, both in terms of geometry and road and route attributes.

SCAG is continuously updating its travel demand model. There are currently two general tracks of model improvements underway: enhancement of the trip-based model, and development of an activity-based micro-simulation model. The activity-based model will be available for final RTP/SCS scenario analysis.
The enhancements to the trip-based model were designed to specifically address the needs of better modeling 4-D, as well as improve model sensitivity to non-motorized and transit travel options and road pricing. The current schedule calls for the model to be validated to 2008 conditions by December 2010, and for this updated model to be used in the development of the 2008 Regional Transportation Plan. Some features of this updated model include:

- Household and population attributes developed from the activity-based model population synthesizer.

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

Main Office

818 West Seventh Street
12th Floor
Los Angeles, California
90017-3435

t (213) 236-1800
f (213) 236-1825

www.scag.ca.gov

Officers

President
Larry McCallon, Highland

First Vice President
Pam O'Connor, Santa Monica

Second Vice President
Glen Becerra, Simi Valley

Executive/Administration Committee Chair

Larry McCallon, Highland

Policy Committee Chairs

Community, Economic and Human Development
Bill Jahn, Big Bear Lake

Energy & Environment
Margaret Clark, Rosemead

Transportation
Greg Pettis, Cathedral City

- Multi-tiered zone system. In recognition that the current 4,109 zone system (tier 1 zones) may be too coarse for some intended uses of the model, a new tiered zone system was developed to expand the number of zones to more than 11,000 (tier 2 zones) for regional analysis and even more zones (tier 3 zones) for local analysis. As an example, Imperial County has110 tier 1 zones, 239 tier 2 zones, and 732 tier 3 zones while San Bernardino County has 402 tier 1 zones, 1416 tier 2 zones, and 2521 tier 3 zones.
- Walk accessibilities developed using the TeleAtlas street network.
- An auto ownership model that is sensitive to housing, employment and intersection density, transit accessibility, non-motorized accessibility, and type of dwelling unit, in addition to household attributes (income, size and number of workers).
- Destination choice models in lieu of the gravity models to forecast trip distribution, based on mode choice log sums as the impedance measure and stratified by worker income (work purposes), or household income (non-work purposes). Where discernible from the available data, these models will explicitly account for differences in trip lengths due to residential and/or employment density.
- Updated mode choice models, featuring on the transit side a finer representation of the region's transit options, explicit station choice behavior for all rail modes, and detailed modeling of walk, drive and bus access to rail stations and park-n-ride locations. The updated model includes walk and bike travel options, in addition to 2-person, 3-person and 4+ person carpool options. The mode choice model also includes an optional binary toll/no-toll model for all auto choices. The mode choice models are segmented by household income, and are sensitive to level-of-service (in-vehicle and out-of-vehicle time, fare, tolls, parking and operating costs) and zonal attributes, such as residential density.
- A time of day choice model specifically designed for the evaluation of congestion pricing and other variably-priced road alternatives.
- Travel time feedback to all model steps, ensuring consistency between the demand model and the trip assignment simulation.