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TO: Doug Ito, California Air Resources Board
 FROM: Kurt Kroninger, Director of Technical Services *KWK*
 SUBJECT: Model Updates Related to Senate Bill (SB) 375 Target Setting

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On July 23, 2010, the San Diego Association of Governments (SANDAG) Board of Directors approved submittal of proposed greenhouse gas (GHG) targets for 2020 and 2035. The SANDAG Board adopted targets of 7 percent and 13 percent for 2020 and 2035, respectively. SANDAG staff modeled each alternative using the SANDAG Regional Travel Demand Model. The modeling, financial, and political assessment of each land use and transportation alternative informed the SANDAG Board's target recommendation.

Between the May and July SANDAG board meetings on SB 375 target setting, SANDAG staff made updates to the Regional Travel Demand Model as part of the ongoing process to finalize the model for the 2050 Regional Transportation Plan (RTP). Some of the improvements are minor, and some, as noted below, are significant changes. In the past, SANDAG has not conducted model runs for policy discussion using a draft RTP model. However, because SANDAG wanted to incorporate the latest planning and land use assumptions into the SB 375 target setting analysis, SANDAG used its draft model for target setting analysis.

This memorandum highlights the most significant model adjustments over the last three months.

Refined Mixed-Use Land Use Designation

In the 2050 Regional Growth Forecast, SANDAG added a new mixed-use land use designation to our land inventory system. The new definition includes any project containing commercial and residential uses regardless of the integration and density of the two uses. Local jurisdictions used the new land use code widely in their forecast inputs.

The new land use code has been difficult to integrate into the trip generation module of our Regional Travel Demand Model. Land use designations largely drive trip generation rates in the model, and the new mixed land use code does not provide enough detail to assign trip generation rates appropriately.

Over the past three months, SANDAG staff reviewed each large area, mixed-use designation and assigned a more detailed accounting of land use designations. In some instances, the review resulted in an increase in trip generation and, in other cases, resulted in a decrease in trip generation. Overall, the process resulted in a more accurate trip generation in our Regional Travel Demand Model.

External Trip Generation Rates

SANDAG adjusted the number of trips generated at each external cordon for the base year and forecast years based on input from Caltrans and United States (U.S.) Customs and Border Protection. The San Diego Region has external travel cordons with Orange County, Riverside County, Imperial County, and Baja California. In the base year, SANDAG underrepresented existing travel at the region's borders with Orange and Riverside, and significantly undercounted travel at the international border with Mexico.

SANDAG coordinated with Caltrans and U.S. Customs and Border Protection to more accurately reflect current conditions in the Regional Travel Demand Model. This coordination resulted in higher regional trip rates and vehicle miles traveled in the base year and higher projections about interregional travel into the future.

Maintenance Fee

In certain earlier target setting scenarios, SANDAG included an escalating vehicle maintenance fee in the auto operating costs. In the most current analysis, SANDAG used a static maintenance fee in lieu of an escalating fee. SANDAG removed the escalation after reviewing historical data from annual American Automobile Association *Your Driving Costs* reports. In general, lower auto operating costs increase modeled vehicle miles traveled leading to an increase in GHG emissions.

Transit Fares

SANDAG staff integrated updated transit fares from the Mid-Coast Corridor Transit Project into the main code base of the Regional Travel Demand Model this past spring. The changes reflect a more realistic assumption about current and future fares provided by the SANDAG transit planners and local transit operators.

These adjustments to the SANDAG Regional Travel Demand Model and thorough financial and political review of each scenario contributed to the final SANDAG Board recommendation on GHG targets for the San Diego region.

If you have further questions or concerns, please feel free to contact me or Clint Daniels of my staff at (619) 699-6946.

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