



Item #06-4-26  
Receive & File

## SACOG Board of Directors

April 13, 2006

### Air Quality Modeling Update

**Issue:** The integration of the Blueprint aspects of the MTP2030 with the regional air quality planning requires model improvements that demonstrate the land use impacts on travel.

**Recommendation:** Receive and file only.

**Committee Action/Discussion:** The Air Quality Committee reviewed this item. One of the strengths of the Blueprint process was to demonstrate the land use impacts of different growth patterns on travel demand and congestion. Travel model improvements must be made to carry forward this analysis into air quality planning and conformity analysis.

For the 2007 ozone State Implementation Plan (SIP), Federal requirements allow land use benefits in vehicle emissions to be counted, but the analysis of these impacts is relatively new. Consequently, the land use-travel interactions need to be as clear and quantifiable as possible. Regionally, the air quality management districts conduct reviews of land use development proposals for air quality benefits. It is desired that this review be more closely coordinated with the land use-transportation planning that SACOG has conducted.

To address both of these needs, two model improvement projects are underway. The model development projects have basic similarities, but some differences, in this initial development stage. It is hoped that future improvements will bring them closer together. The first project is to improve the I-PLACE<sup>3</sup>S planning program that was so important to the Blueprint study, by adding a version of current SACOG regional travel demand model into I-PLACE<sup>3</sup>S. That allows improved travel analysis of land use changes and includes a vehicle emissions calculation. Air districts can use the improved models to strengthen their land development review, which does not now have a travel model's ability to show the impacts of density and mix of land uses or a traffic assignment process to show congestion changes.

The other model development project is the activity-based travel demand model, a new generation of model that includes much greater sensitivity to land use impacts. The land use data is taken directly from the parcel-level data that I-PLACE<sup>3</sup>S produces. This new regional model will be used in the MTP2030 and ozone SIP planning to produce vehicle emissions. There are few models of this type in the country, so Federal agencies will be engaged to improve their understanding and acceptance. Through the use of this model, we will demonstrate the importance of land use effects to the MTP and to the SIP.

Future improvements will focus on replacing the current travel model used in the I-PLACE<sup>3</sup>S program with relevant components of the new activity based model.

Approved by:

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Executive Director

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