



# Shasta County

Regional Transportation  
Planning Agency

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**Daniel S. Little, Executive Director**

**DATE:** February 23, 2009

**TO:** SB 375 RTAC Workgroup

**FROM:** Daniel S. Little, AICP, Executive Director  
By Daniel Wayne, Senior Planner *DW*

**SUBJECT: Shasta County RTPA – Travel Modeling Capabilities**

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This memo is to inform the Senate Bill 375 Regional Targets Advisory Committee (RTAC) of the Shasta County Regional Transportation Planning Agency's (SCRTPA) current and anticipated modeling capabilities pertaining to SB 375. The following information is intended to assist the RTAC in determining methodologies for setting regional greenhouse gas targets, measuring progress toward these targets, and placing a number on much needed funding support.

Below is a brief outline of SCRTPA's regional traffic model and related GIS capabilities:

Regional transportation model:

- Traditional 4 step model (trip generation, trip distribution, mode choice, trip assignment);
- Calibrated to a base year of 2004 and contains forecast in five year bands to 2030;
- Contains 880 traffic analysis zones (TAZ), and 16 gateways;
- Contains 30 land use categories and 48 special generators;
- Utilizes Citilabs' Cube Voyager software;
- Contains seven trip purposes (home-work, home-school, home-shop, home-other, other-work, other-other, commercial vehicle);
- Produces the following measures of effectiveness (vehicles miles traveled, vehicle hours of travel, vehicle hours of delay, and average speed);
- Produces level of service estimates based on per-lane capacity;
- Contains a road network with 5,000 active nodes and 12,000 links;
- Validated – both static and dynamic;
- Provides number of trips generated for AM and PM, peak hour, daily average, and transit volume (daily bus).

Regional Blueprint and other related GIS capabilities/data layers:

- UPlan modeling software is employed for Shasta County's Regional Blueprint;
- UPlan modeling outputs have been linked to the Shasta County Travel Model for VMT and other standard travel model outputs;
- UPlan and travel model outputs have been linked to the Emission FACTors (EMFAC) model for the calculation of automobile and light truck emissions;
- Methodology for allocating vertical mixed-use (based on what Fresno COG developed) is being utilized until the next version of UPlan arrives (ETA spring-summer 2009);
- County-wide current land use layer exists, but is out of date in large portions of the region);

It should be noted that the SCRTPA has no in-house modeling or GIS staff; updates and model runs require consultant support. Compliance with AB 32 and SB 375 will necessitate additional resources for consultant support and/or development of in-house modeling and GIS expertise.