

## MEMORANDUM

TO: George Dondero, Executive Director

FROM: Lisa Powell, Transportation Planner

RE: Summary of Meetings regarding Regional Travel Demand Model Assumptions

DATE: January 4, 2007

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The following summarizes four meetings held with the Association of Monterey Bay Area Governments (AMBAG) staff from October 2006 to early January 2007 regarding the AMBAG traffic demand model, including questions raised by commissioners on September 7, 2006 during the quarterly report on the Highway 1 HOV Lane Project by Nolte Associates.

### Questions from Commissioners:

***Does the AMBAG travel demand model assume 15,000 students at UCSC, or does it take into account future growth of the university?***

The model does take into account future growth at UCSC. The University is a special trip generator within the model. The model assumes 21,000 students in year 2030, but there are actually three components of the University's operation that affect the traffic model. These are Enrollment, Employment, and Housing on-campus. Growth in all three areas is assumed in the model. The growth projections in the model are based on planning efforts by the University at the time of the model's creation in 2003-2004, including work involved in development of the Long Range Development Plan which projected activity to 2015. The City of Santa Cruz also reviewed the assumptions used in projecting the employment growth associated with the university and the surrounding area. City staff concurred with the forecasting at the time of the development of the model.

***What percent growth does the travel demand model assume, and how is this growth distributed throughout Santa Cruz County?***

AMBAG's 2004 Population, Housing Unit and Employment Forecasts are the source for the growth assumptions used in the travel demand model. The average annual growth rate to project 2030 population for Santa Cruz County is 0.64%. The average annual housing unit growth is 0.65%. The average annual employment growth is 1.42%. The area within the county with the highest annual growth rates is Watsonville with 1.97% (population), 1.85% (housing), and 1.53% (employment). Growth within Santa Cruz County is constrained by growth ordinances and this is reflected in the above numbers.

***Does the travel demand model assume growth that exceeds approved Jurisdictional General Plans?***

Short answer: No.

Long answer: As noted previously, the source of the growth assumptions used in the travel demand model is AMBAG's *2004 Population, Housing Unit and Employment Forecasts*. The 2004 Forecasts were developed at the parcel level to identify vacant or underutilized land within the County that could reasonably accommodate growth. General Plan designation was a key criterion that determined if growth could be allocated to parcels. AMBAG representatives met with each jurisdiction to review the draft versions of the forecast allocations. The draft forecast allocations were modified as required in response to the feedback provided by each jurisdiction. AMBAG's *2004 Population, Housing Unit and Employment Forecasts* were approved by the AMBAG board in April 2004. The travel demand model is not required to be approved or adopted by the AMBAG board.

**Other Questions and Concerns:**

**1. Growth Forecasts**

- a. Disagreements on growth forecasts are discussed with the corresponding agency and analyzed at the parcel level. Growth rates are set by the state and the region risks losing state incentives if not accommodated.
- b. Santa Cruz County has a maximum growth rate of 0.5%. The City of Santa Cruz and City of Watsonville also have growth control measures. Affordable housing is exempt from growth measures.
- c. AMBAG does not believe their employment is over forecasted. They use Woods and Pool data which takes into account part time and seasonal employment which accounts for a lot of employment in the region (tourism, agriculture)

**2. Model update scheduled for 2008**

- a. AMBAG applied for a Blue Print Grant to help fund an update to the population, employment, and housing projections. The proposed process would explore different growth scenarios and include public participation in review of the growth scenarios.
- b. When updating the model, typically AMBAG has an advisory committee that includes planning departments of the Cities and Counties. Ultimately it is the AMBAG board that adopts the projections.
- c. Users of the model have requested more frequent updates to the model. AMBAG is concerned it may not have the resources to do more frequent updates. Another concern is the model requires either census data (available every 10 years) or an expensive phone survey. AMBAG does not have adequate resources to complete a phone survey.
- d. The RTC can help AMBAG keep the model fresh and updated by providing screenline traffic counts with vehicle classification so AMBAG can validate the model.
- e. The UCSC Long Range Development Plan that was recently approved projects through 2020. The most recent Development Plan needs to be incorporated into the AMBAG model.
- f. UCSC staff would prefer the AMBAG model reflect student and employee residential distribution data and trip making characteristics provided by the university. Currently the model uses census data, but UCSC data would be

more accurate since the university can reference payroll data and student registration information to more accurately report travel behavior.

### **3. Use of model**

- a. The model is available for use by public agencies and private consultants upon entering into a Model Use Agreement with AMBAG. The agreement details acceptable uses and modifications parties can make to the model while retaining credible results.
- b. AMBAG's modeling staff reports that updates are made to the model as users forward updated information, particularly as it relates to land use changes.
- c. Model users have expressed an interest in creating a method where they can view updates that have been incorporated and comment on areas requiring updating. AMBAG will investigate what can be done.
- d. The users expressed an interest in having a 5- or 15-year projection in the model. When projects require opening year modeling, the user is required to interpolate this using 2030 data. This creates consistency problems. AMBAG will investigate the feasibility of this.

### **4. Highway 1 Project and the AMBAG model**

- a. During the AMBAG model users group meeting, I gave a brief update of the progression of the Hwy 1 modeling to the group. I highlighted what the project team has experienced with the Hwy 1 modeling of arterials and interchanges. The AMBAG model is not constrained by geometry (number of existing lanes and turn lanes), so it floods the corridors with cars based on demand even though they could not possibly get to the intersection with the current lanes that are out there (and there are no plans to widen these arterials. The demand is there, but it does not necessarily translate into a need for widening. In the simulation the model speed decreases on the roadways but the demand is not changed. The model does not reassign trips (i.e. for a later time, or to an alternate route or mode). The model is showing that the demand is there. As a result, the combination of the travel demand and traffic operation models predict a worse case congestion scenario which includes a portion of the induced demand that would be anticipated with expanding highway capacity.