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To: ctp2040@DOT
Subject: CTP2040 45-day Public Review Period Comments

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Below is the result of your feedback form. It was submitted by Bob Johnston (rajohnston@ucdavis.edu) on March 13th, 2015 at 02:49PM (PDT).

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chapter: All
comments: 1. This CTP is a great improvement over past plans, which did not run a travel model. The use of TREDIS is also very innovative. This is the best statewide travel model in existence.

2. More use of the travel model could have been made, such as discussing travel costs by more HH income groups, statewide and by region. CSTDM also allows the analysis of travel costs by trip purpose, which can lead to important policy insights.

3. The Equity analysis is incomplete and, worse, is misleading. Businesses benefit, but HHs have higher costs. This must be discussed. Overall, Fed. and Calif. EJ rules need to be followed here.

4. Scenario 2 shows the need for more pricing policies. The most important one missing is parking pricing, which CSTDM can represent in reasonable spatial detail. This policy is well studied and very effective for many trip purposes.

5. The poor performance of Scenario 2 with respect to AB 32 goals also shows the need for land use policies to be modeled. Many published papers by me and others show how land use policies complement pricing and transit to decrease VMT. A paper by Rodier done for the ARB reviewed such policies globally and also showed that all three policy types are needed to get large VMT reductions.

In the next CTP, please run a land use model, as you recommend on pg. 124. You can frame this as part of an economic analysis, where you let the land uses respond to the changes in accessibility, to see the efficient market situation and so maximum economic benefits, for analysis purposes. This, then, will not threaten local government authority over land use regulation. Then, the official scenarios with the fixed MPO land use projections will usually show lesser economic benefits, and the MPOs can see the need to run their own land use models, as urged by the CTC Guidelines. Also, this could be a side study of economic impacts that includes the market-based land use changes, and not part of the main report.

6. On p.111, you recommend improved tools for equity analysis. Of the available land use models being used in California, only one, the PECAS model, includes a complete microeconomic structure, where households and employees bid for floorspace to locate in, as well as a complete description of all goods and services in macroeconomic exchanges among sectors and zones. So, this model can give many measures of aggregate economic welfare (wages, state product,

regional product, etc.) useful in planning. And also give measures useful in equity analysis, such as change in household income by income group, for the State or region, or rent paid as a percent of income, or jobs/housing balance, or jobs/housing fit (matched by rent and income). The TREDIS model would still be useful, to represent changes to the statewide and regional economies caused by major changes in economic conditions represented in the PECAS model.

7. On p.112 you recommend improved methods for environmental impact evaluation. Many land use models, such as UPlan, PECAS, and UrbanSim, can project land use changes at the small zone or parcel level, in the building developer parts of the model sets. Both of these models can be linked to GIS systems (run as Arc/Oracle, or similar geodatabases) and so produce maps viewable in common software owned by government agencies. Since PECAS gives better economic outputs for large-scale analysis, it is preferable for the CTP.

8. CSTDM could be used to directly represent BRT as changes in access among zone pairs. This would be more accurate and also allow spatial detail in analyses.

9. Getting the Statewide Freight model completed and using it next time will allow a discussion of freight modes and corridor improvements needed.

10. Many recommendations are vague and so please be more specific. Many recommendations seem to have been backfitted to this modeling exercise from earlier reports. Try to better connect them to the findings from this modeling work.

11. Re. the performance measures, there are way too many and so it is impossible to rate any scenario as "better." Focusing on VMT reduction did permit you to do this, but other impacts are lost in the mess of measures. I would drop all measures of mobility, such as #14 on p.6. More important, Caltrans and the Legislature need to consider dropping the STIP out of State planning, since you state clearly in several places that new roadway capacity will not help achieve the AB32 goals. It is beneficial that your advisory groups concluded that all new HOV lanes must be converted lanes.

12. Other mobility measures include travel time, delay, congestion, effects on productivity, network performance, reliability, and speed. Return on investment should probably be dropped, since it is inadequately measured. Because no land use model was used, congestion is overprojected in many urban areas due to inadequate moving of households and firms and inaccurate projection of new development locations and upzoning. Until the MPOs are all using land use models in some form, their land use projections will be inaccurate, especially beyond 20 years out. Since congestion is likely to be overprojected in some areas, the effects of pricing and transit policies can not be accurately forecast either.

13. The AB 857 goals seem to urge Caltrans to study stronger land use policies, as a way of informing cities and counties of their effects on VMT. So, I suggest that Caltrans examine at least one Compact Growth scenario next time. The advisory compact land use alternatives examined by most large COGs (many are MPOs now) in California in the 1969-72 period had tremendous and rapid effects on cities and counties. Most of them zoned large outlying areas as open space or large lot agricultural in the 1970s, creating de facto urban growth boundaries, and saving billions in travel costs and habitats.

14. The impacts of the road pricing policy should be studied in more detail. Also, one variant of the analysis should assume the funds collected are returned to the public in the form of State income tax reduction, to show the large economic benefits of this policy.

15. The per capita reductions in VMT (pp.98-99) seem reasonable, in light of other studies of the elasticity of demand for driving with respect to price. The implied elasticity of about -0.33 is conservative and so is OK for this purpose.

16. The relative economic benefits lessen in the out years partly because no land use model was used and the inefficiency of the land use patterns (locations of activities) becomes greater.

17. There are surprisingly few typos (pp.87, 91, 102, etc.).

Thanks for considering these ideas. Bob Johnston. 415 663-8305 rajohnston@ucdavis.edu

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