

Consultant contract for assistance with development and application of the TPB travel demand model:

Status report of TPB staff review of six years of consultant recommendations

Presentation to the TPB Travel Forecasting Subcommittee
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Background

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- This consultant assistance project, also known as the “scan of best modeling practice” project is now in its seventh year (begun in FY 2006)
- Past consultants:
 - ▣ Vanasse Hangen Brustlin, Inc. (VHB): FY 2006-2008
 - ▣ Cambridge Systematics, Inc. (CS): FY 2009-2011
- Current consultant: AECOM: FY 2012

Background

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- Over the last 6 years, consultant recommendations from the “scanning” project have helped guide the models development program and have resulted in a series of useful reports:
- Vanasse Hangen Brustlin, Inc. (VHB)
 - ▣ *Results of FY 2006 Travel Forecasting Research* (Sept. 22, 2006)
 - ▣ *Results of FY 2007 Travel Forecasting Research* (Nov. 16, 2007)
 - ▣ *Expanded Evaluation of Peak Spreading* (Jun. 30, 2008)
 - ▣ *Estimating the Impact of Exurban Commuters on Travel Demand* (Jun. 30, 2008)
- Cambridge Systematics, Inc. (CS):
 - ▣ *FY 2009 Task Reports, Final Report* (Nov. 20, 2009)
 - ▣ *FY 2010 Task Reports, Final Report* (Nov. 16, 2010)
 - ▣ *FY 2011 Task Reports, Final Report* (Jun. 30, 2011)

Background

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- Although the consultant recommendations have helped guide the models development program, TPB staff has not issued a formal report documenting the TPB staff response to the consultant recommendations
- Consequently, TPB staff is currently working on such a report

Organization of the planned report

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- Each chapter of the report will cover a topic, such as “data collection and surveys,” or “inputs to the travel model.” Within each chapter, we plan to have three sections:
 - ▣ A summary of the consultant findings and recommendations for the given topic area, with an emphasis on the recommendations (findings are to be presented mainly to give context to the recommendations);
 - ▣ A discussion of both the consultant recommendations and the current TPB procedure in the given topic area; and
 - ▣ The TPB staff response to the consultant recommendations.

Current topics in the outline

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- Data collection and surveys
- Inputs to the travel model
- External trip forecasts
- Socio-economic models
- Trip generation, including special generators
- Trip distribution
- Mode choice
- Time-of-day/peak spreading
- Traffic assignment
- Speed feedback in the travel model
- Modeling HOT/managed lanes
- Modeling transit
- Modeling trips to/from the airports
- Modeling non-motorized (walk and bike) trips
- Tour-based & activity-based models (ABMs)
- Calibration, validation, sensitivity testing
- Miscellaneous topics

Next steps

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- TPB staff will continue to review the seven consultant reports issued over the last six years by VHB and CS
- TPB will draft a staff report, which should be ready by early March.
- Ultimate goal of the report: Help us formulate future work activities, including a timeline, for updating the model
 - ▣ Some of the consultant recommendations have already made it into the model (e.g., splitting NHB to NH work and NH other)
 - ▣ Some of the consultant recommendations will be included as work activities in the FY 2013 UPWP;
 - ▣ Some of the consultant recommendations will likely be included in future UPWPs