Attachment A: Strengths and Limitations of Caltrans Guidance and LA County-Specific Quantification Approach

Caltrans Guidance (California Induced Travel Calculator)

Strengths

- Forecasts long-term induced Vehicle Miles Traveled (VMT) changes while controlling for variables such as population/employment growth and income changes
- Best used to understand order-of-magnitude induced VMT impacts
- Caltrans' preferred methodology with broad applicability across the entire state of California
- Meets California Environmental Quality Act (CEQA) defensibility requirements
- 5. Simple to use

Combines the advantages of the Southern California
Association of Governments (SCAG) Activity-Based
Model (ABM) and elasticity-based methodology to

LA County-Specific Quantification Approach

 Calibrated/validated to LA County-specific data sources, and context, incorporating Metropolitan Statistical Area (MSA)-by-MSA VMT differences

calculate combined short/long-range induced VMT

- Forecasts VMT changes based on variables such as population/employment growth, automobile operating costs, and income changes
- Reflects context sensitivity for land use (infill vs. greenfield, high vs. low density), the transportation network (available multimodal travel options including off-peak bus service, bus rapid transit, and rail transit), congestion levels, and network effects (i.e., building a bridge)
- Measures VMT of passenger (light-duty) cars and trucks, aligning with legislative intent of Senate Bill (SB) 743
- Presumes High Occupancy Vehicle (HOV)/High Occupancy Toll (HOT)/General Purpose (GP) lanes have different induced VMT effects
- 7. Provides information about a "without project" condition and cumulative impacts, required by CEQA and National Environmental Policy Act (NEPA)
- 8. Provides VMT by speed bin, required for federal air quality conformity analysis

Limitations

- 1. Does not provide precise, project-specific outcomes
- Ignores MSA-by-MSA VMT variations and declining LA County VMT trends
- 3. Academic research utilizes demographic data (1973-2003) that does not reflect recent changes (COVID-19, Transportation Network Companies (TNCs), internet shopping, etc.)
- 4. Does not reflect context sensitivity for land use (infill vs. greenfield, high vs. low density), the transportation network (available multimodal travel options including off-peak bus service, bus rapid transit, and rail transit), congestion levels, and network effects (i.e., building a bridge)
- Presumes HOV/HOT/GP lanes have the same induced VMT effect
- Presumes only remedy to both congestion and induced VMT is congestion pricing while ignoring other solutions (e.g., bus and rail transit, telecommuting, car/vanpooling, etc.)
- Does not provide information about a "without project" condition or cumulative impacts, required by CEQA and NEPA
- 8. Does not provide VMT by speed bin, required for federal air quality conformity analysis
- Per University of California, Davis, developers of the Calculator, long-term validation likely not possible

- Increased complexity compared to the California Induced Travel Calculator
- Requires additional time, resources, and technical analysis to produce results
- Requires additional study and concurrence by Caltrans prior to deployment
- 4. Has not been CEQA tested to prove CEQA defensibility