



California Statewide Freight Forecasting Model

What? The California Statewide Freight Forecasting Model (CSFFM) is being developed to assist the Department and our partner agencies to better understand freight movement in California and its impacts on highway infrastructure, transportation networks, highway safety, energy consumption, emissions and regulatory policies. This commodity based model will ultimately provide Caltrans, our partner agencies and other stakeholders with a comprehensive freight analysis and modeling tool that can identify the individual movements of commodities transported by trucks, trains, ships, and airplanes.

Additional data collection and surveys are currently under progress to fully utilize the freight model.

Why? The formulation of the CFFM originated from the need to develop a freight modeling system capable of evaluating the impacts of freight infrastructure enhancements and other related strategies to relieve traffic congestion, improve mobility, air quality, emissions analysis, public health, climate change and the relationship to the economy.

How? The CSFFM utilizes Citilabs Cube software to ensure compatibility with the California Statewide Travel Demand Model (CSTDm). The model includes a 2007 Base Year and future year data sets for 2020 and 2040. Model updates are expected on a 5 year cycle and will incorporate the most recent freight data sources through CALFRED. The update will be consistent with updates for the CSTDm.

Partners? California Air Resources Board, California Energy Commission, SCAG and SANDAG all participated in technical advisory committee meetings and/or peer advisory committee meetings throughout the 2 year contract. Their input was critical during the model development process.

Products? A comprehensive freight modeling tool that will evaluate the following:

- GHG reduction strategies as required by AB 32 and SB 391
- MAP-21 system performance requirements for conducting objective analyses of freight transportation and future needs
- Variables in logistics chaining process
- Model emissions with the various freight modes
- Assess the impacts of freight infrastructure improvements statewide

Who Will Benefit? The CSFFM will provide a freight transportation analysis frame for analyzing the impacts and relationship between commodity flows and individual movement of trucks, trains, ships, airplanes, linkages between these movements and transportation networks, highway safety, energy/fuel consumption, efficiency of goods movement, economics and emissions.

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