

DRISI

CALTRANS DIVISION OF RESEARCH,
INNOVATION AND SYSTEM INFORMATION

Research

Notes

Executive

NOVEMBER 2023

Project Title:
Methods for assessing the effectiveness of potential vehicle-miles-traveled (VMT) mitigation measures

Task Number: 3695

Start Date: April 25, 2022

Completion Date: March 30, 2024

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Assessment of VMT mitigation actions

Establish a library of project-level greenhouse gas (GHG) reduction measures that could be incorporated into transportation projects and reduce GHG emissions.

WHAT IS THE NEED?

Under the Transportation Analysis Framework (TAF), developed in response to SB 743, Caltrans must analyze the impacts of projects on the State Highway System (SHS) on vehicle-miles-traveled (VMT) as a part of the environmental review process under the California Environmental Quality Act (CEQA). The TAF outlines methods for analyzing these impacts, including the estimation of the impact of SHS projects on VMT, known as the induced travel effect. Identification of viable measures for mitigating VMT impacts is a required part of the CEQA process, and thus guidance on potential mitigation measures as well as methods for estimating the potential effectiveness of these measures are also needed. This project will develop guidance and methods for assessing VMT reduction for various potential mitigation measures for SHS projects.

WHAT ARE WE DOING?

The first objective of the project is to develop a list of potential mitigation measures drawn from existing sources and with input from stakeholders, that may be appropriate for VMT mitigation for SHS projects; an explanation of the role that Caltrans can play, directly or indirectly, in their implementation; and a discussion of the contexts in which they are most appropriate and effective. The second objective is to assess methods for estimating the effectiveness of potential VMT mitigation measures. Methods to be assessed include regional travel demand forecasting models, "off-model" adjustment methods, the California Air Resources Board's quantification methods, the updated CalEEMod tool, and others. The third objective is to explore the possibility of



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developing an accessibility tool that can be used for estimating the effects of VMT mitigation measures. Specific work tasks are listed below:

- Development of List of potential mitigation measures
- Assessment of available methods for estimating the effectiveness of the actions in the list
- Development of an accessibility-based tool for mitigation estimation
- Dissemination of Final Report and Training

WHAT IS OUR GOAL?

The goal of this project is to develop guidance and methods for assessing VMT reduction for various potential mitigation measures for SHS projects.

WHAT IS THE BENEFIT?

If successful, the guidance produced under this project will be available to practitioners across California, providing them with location and project type-specific information to consider when determining the suitability of VMT reducing projects for the purposes of CEQA.

WHAT IS THE PROGRESS TO DATE?

The research team has completed work on a list of mitigation measures and opportunities for accessibility-based estimation of the effects of VMT-reducing projects. An in-depth assessment of the quality of information available for each measure is set to be delivered in the winter of 2023. On the accessibility side of the project, the research team continues to work with Conveyal to calibrate the rate at which duration of travel affects decisions around which mode of travel to take.

IMAGE

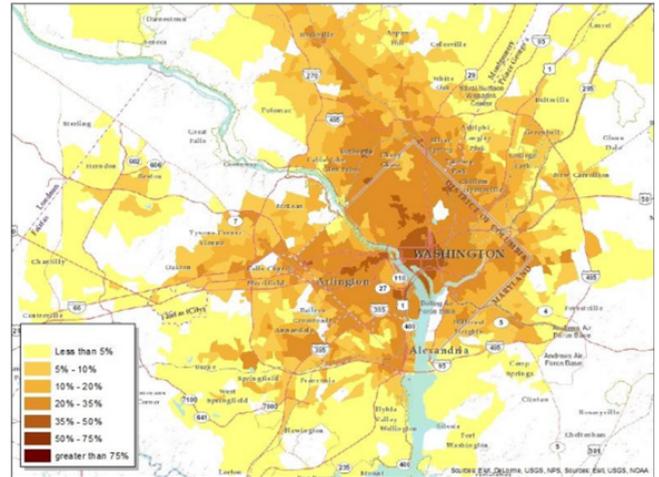


Image 1: Output from U.S. EPA's Access to Jobs and Workers Via Transit Tool, one of the agency's Smart Location Mapping tools. The map shows the percentage of jobs around the Washington region that are accessible by transit. Source: U.S. EPA.