ALAMEDA COUNTY TRANSPORTATION COMMISSION

Alameda County VMT Reduction Estimator Tool: Demonstration of Tool

A presentation to the ACTAC

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FEHR & PEERS

Presentation Overview

- Purpose of Developing an Alameda County Tool
- Summary of Previous Work
  - Review SANDAG Tool
  - Gathered Stakeholder Input
  - Approach for Development of Alameda County Tool
- Description of VMT Reduction Estimator Tool
- Tool demonstration
- Questions/comments

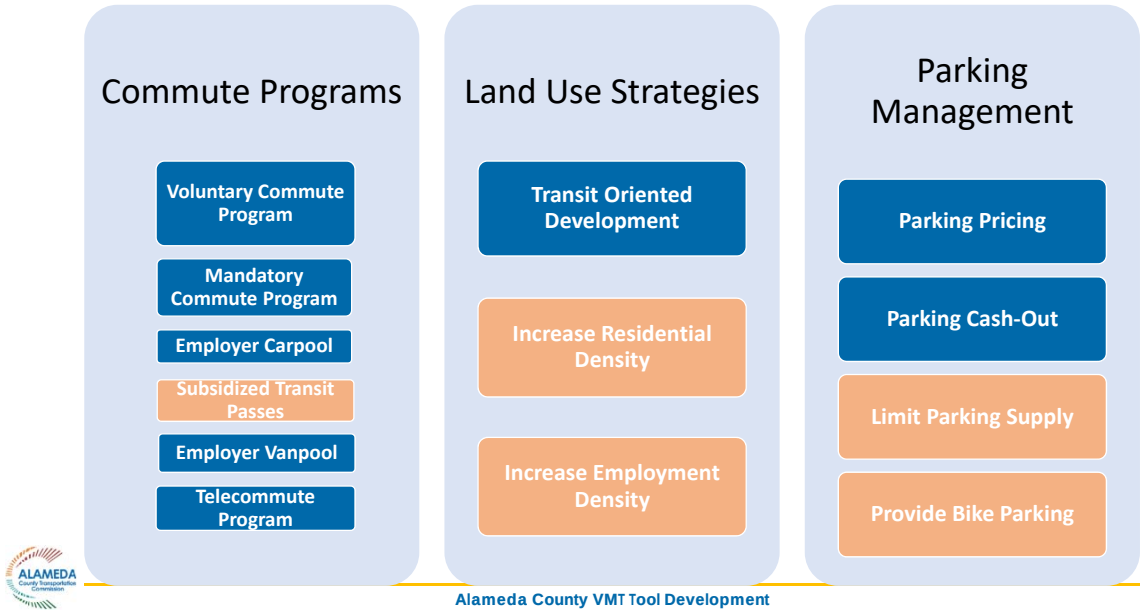
Purpose of VMT Reduction Estimator Tool

- Assist member agencies with implementation of SB743
- Consistent method for use throughout Alameda County
- Develop a tool to estimate the effects of VMT reduction strategies proposed for local land development projects
- Build from a tool developed for San Diego Association of Governments, and customize for Alameda County

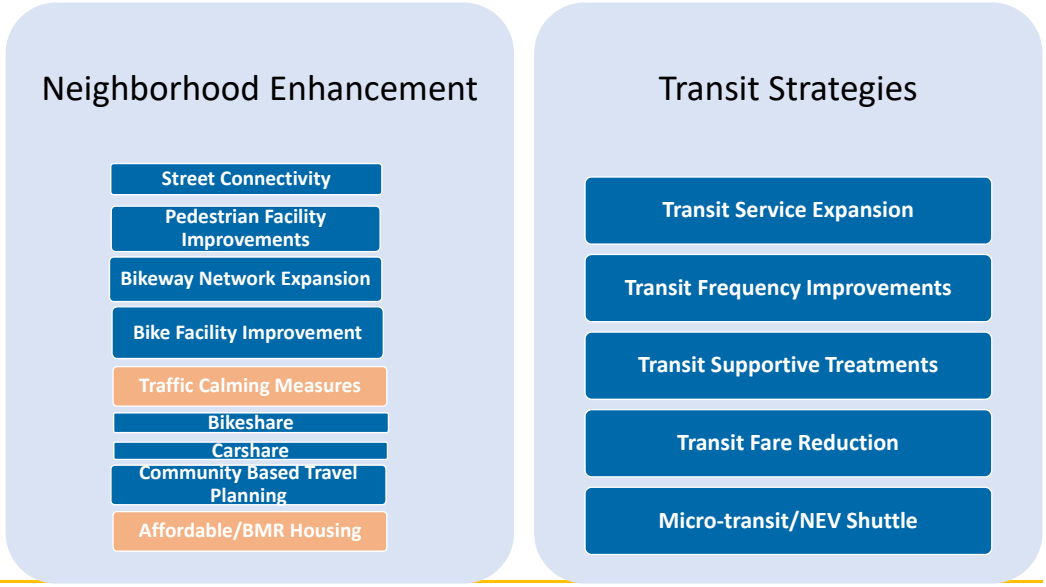
Previous Work

- Reviewed SANDAG VMT Calculator Tool
  - Explore strengths and limitations
- Gathered Stakeholder Input
  - SB743 Working Group (3 meetings); ACTAC (2 meetings)
  - Online survey
- Confirmed Approach for Alameda VMT Reduction Estimator Tool
  - Add six strategies to those already in SANDAG tool
  - Use Alameda County model data for demographics and land use context

Project Level Strategies



City/Community Level Strategies

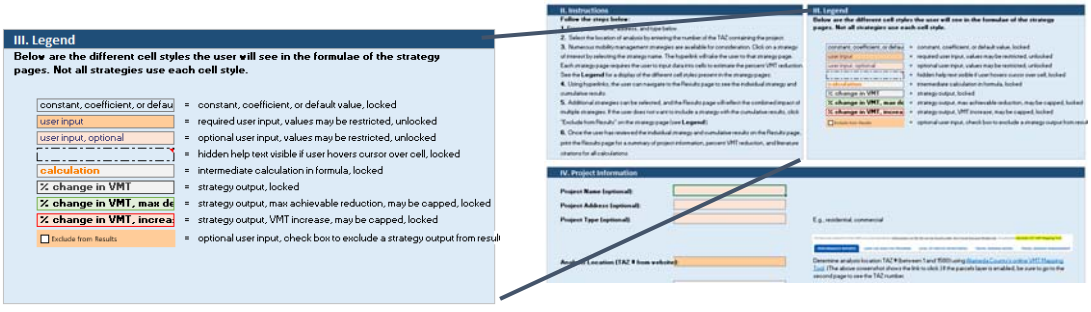


Tool Structure and Functions

- Excel workbook
- User enters project location by TAZ
- Tool contains data on many attributes of each TAZ that affect how VMT reduction strategies will work: population and employment density, mode split, trip lengths, others
- User selects VMT reduction strategies and enters required inputs
- Tool estimates the % VMT reduction resulting from that combination of strategies in that location

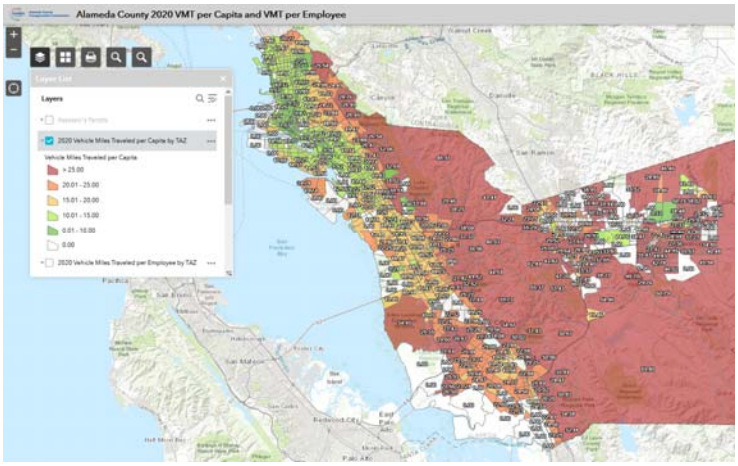
Tool Fundamentals

- Main page provides context, instructions
- Tool includes FAQ page



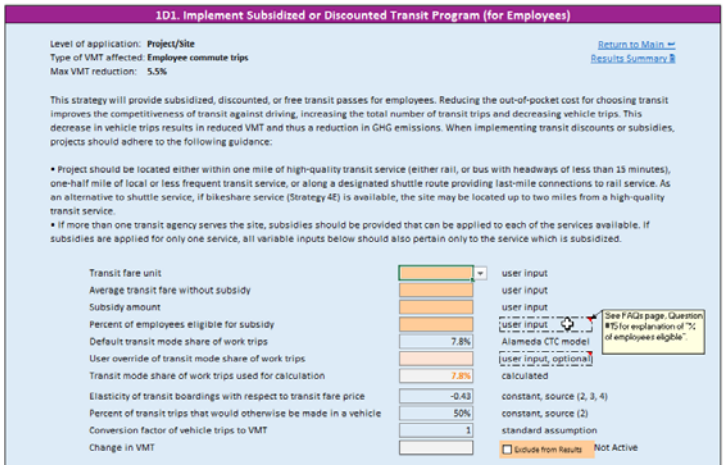
Tool Fundamentals

- User specifies project location using Alameda CTC VMT map



Tool Fundamentals

- One tab for each Strategy
- Each strategy's tab includes description, formula, citations, and explanatory notes


1D1. Implement Subsidized or Discounted Transit Program (for Employees)

Level of application: **Project/Site**
Type of VMT affected: **Employee commute trips**
Max VMT reduction: **5.5%**

Return to Main
Results Summary

This strategy will provide subsidized, discounted, or free transit passes for employees. Reducing the out-of-pocket cost for choosing transit improves the competitiveness of transit against driving, increasing the total number of transit trips and decreasing vehicle trips. This decrease in vehicle trips results in reduced VMT and thus a reduction in GHG emissions. When implementing transit discounts or subsidies, projects should adhere to the following guidance:

- Project should be located either within one mile of high-quality transit service (either rail, or bus with headways of less than 15 minutes), one-half mile of local or less frequent transit service, or along a designated shuttle route providing last-mile connections to rail service. As an alternative to shuttle service, if bikeshare service (Strategy 4E) is available, the site may be located up to two miles from a high-quality transit service.
- If more than one transit agency serves the site, subsidies should be provided that can be applied to each of the services available. If subsidies are applied for only one service, all variable inputs below should also pertain only to the service which is subsidized.

Transit fare unit		user input
Average transit fare without subsidy		user input
Subsidy amount		user input
Percent of employees eligible for subsidy		user input
Default transit mode share of work trips	7.8%	Alameda CTC model
User override of transit mode share of work trips		[user input, optional]
Transit mode share of work trips used for calculation	7.8%	calculated
Elasticity of transit boardings with respect to transit fare price	-0.43	constant, source (2, 3, 4)
Percent of transit trips that would otherwise be made in a vehicle	50%	constant, source (2)
Conversion factor of vehicle trips to VMT	1	standard assumption
Change in VMT		Exclude from Results / Not Active

See FAQs page, Question #5 for explanation of "% of employees eligible".

Tool Demonstration

Comments Received by Working Group and Next Steps

- Comments from the Working Group
- Receive comments from ACTAC today
- Complete the Design Document and User Guide
- Post tool and resources on Alameda CTC website this Summer

Thank You

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