

Module 3 – VMT Mitigation & Steps to Policy Adoption



ASSOCIATION OF BAY AREA GOVERNMENTS
METROPOLITAN TRANSPORTATION COMMISSION

FEHR  PEERS

Cohort: Alameda County

Presented by: Meghan Weir, Karina
Macias & Monique Ho

Date: September 21, 2022

Agenda

1 Introduction & Review

2 VMT Mitigation

Break (5 min)

3 Policy Adoption &
Implementation Considerations

4 Next Steps



Introduction

1

Ground Rules

- Be an active participant – Let's learn from each other!
- Keep your video on if possible
- Ask questions by using the raise hand function or use the chat
- Take turns speaking and give others a chance to speak up, please mute when not speaking

Remember, this is **not** a webinar, we want it to be interactive!

Purpose & Goals of Technical Assistance

- VMT policy adoption is required for compliance with SB743
 - Promote the reduction of greenhouse gas emissions
 - Promote the development of multi-modal transportation networks
 - Promote a diversity of land uses
- Help you create VMT policies that support local values and other policies/goals (housing elements, climate action, etc.)
- Streamline VMT analysis for common land uses, and provide a framework for analyzing unique land uses

This TA program is designed to help you implement the basic steps through approachable templates and workshops, and free, one-on-one consultation assistance

Curriculum Overview

Phase 1a: Summer/Fall 2022

Phase 1b: Fall/Winter 2022

1

Introduction to SB 743

- Overview of Technical Assistance
- Intro to SB 743 & VMT
- OPR Recommendations

2

Two-Step Adoption: Thresholds and Screens

- Application of VMT metrics, thresholds, and screens to your jurisdiction
- Review VMT data
- Peer examples

3

VMT Mitigation & Policy Adoption

- VMT mitigation concepts
- Available tools
- Adoption strategy and implementation considerations



Implementation Support

- Non-CEQA transportation
- Jurisdiction support
- Mitigation fees, banks, and exchanges

Module 3 Learning Objectives

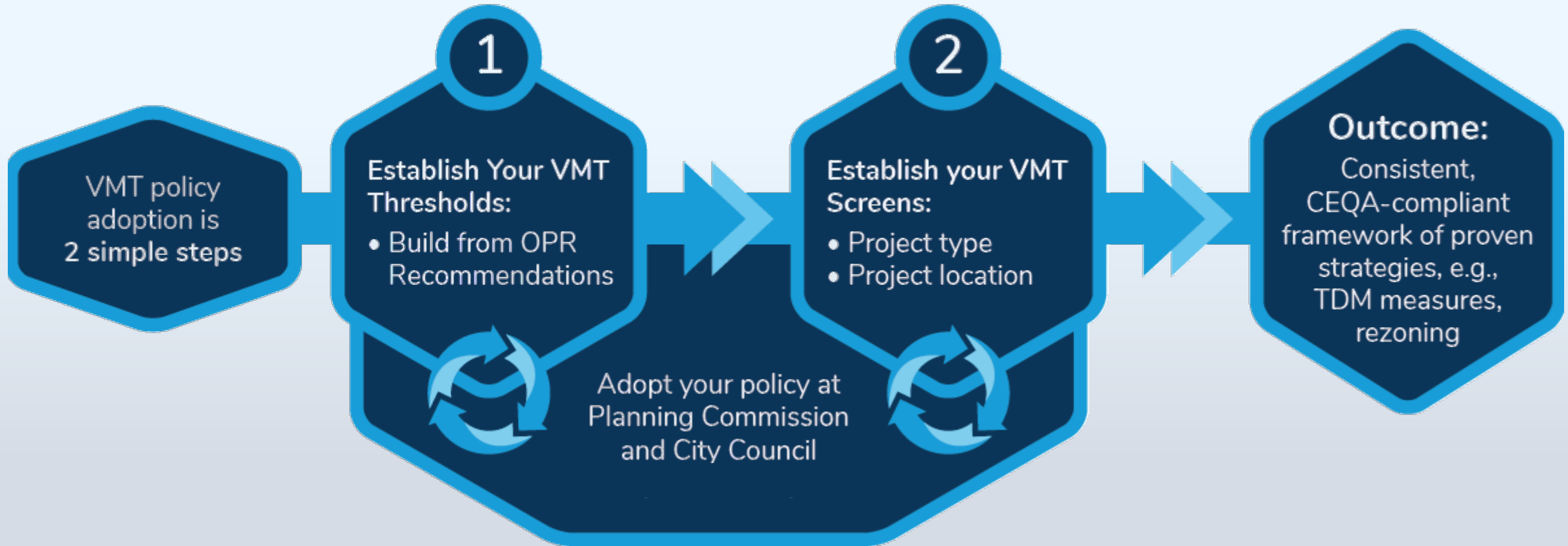
VMT Mitigation

- Understand VMT mitigation concepts and tools for quantifying effectiveness of Transportation Demand Management (TDM) measures
- Understand what policies you can adopt to support VMT mitigation

VMT Policy Adoption Strategy

- Review process to adopt VMT policy

Module 2 Recap & Group Share



Module 2 Recap & Group Share

Module 2 Memo Template – Group Share:

- Share experiences reviewing and filling out memo templates
- Any successful outcomes during this activity, such as conversations that helped to identify appropriate metrics and thresholds?
- Any challenges that arose during this activity?
- Is anyone ready to adopt these policies?

VMT Mitigation

2

What is VMT Mitigation?

Mitigation: Jurisdictions must investigate and disclose all feasible measures to reduce impacts below the threshold of significance

How to reduce Vehicle Miles Traveled?

- Reduce the number of vehicle trips
 - Shift travel to non-driving modes
- Reduce the length of vehicle trips
 - Increase densities or encourage mixed uses

What is Transportation Demand Management (TDM)?

Traditional TDM Approach: On-site programs for employers such as commuter benefits, bicycle parking, etc.

TDM as a tool for VMT Mitigation can include:

- On-site programs for employees, residents, visitors
- On-site or near-site design features supporting active transportation or transit modes
- Parking management
- Community serving infrastructure and programs

Example VMT Mitigation Measures

Site-Specific Features

- Commute trip reduction program
- Price parking or provide parking “cash-out”
- Limit parking supply
- Integrate affordable housing
- Increase residential density
- Provide ridesharing program
- Provide subsidized transit passes

Community-Based Measures

- Provide community-based travel planning
- Charge for public parking
- Provide pedestrian network improvements
- Construct or improve bicycle facilities
- Expand transit network or service
- Improve bus stops and other transit-supportive roadway treatments
- Implement a carshare program
- Implement bike or scooter share program

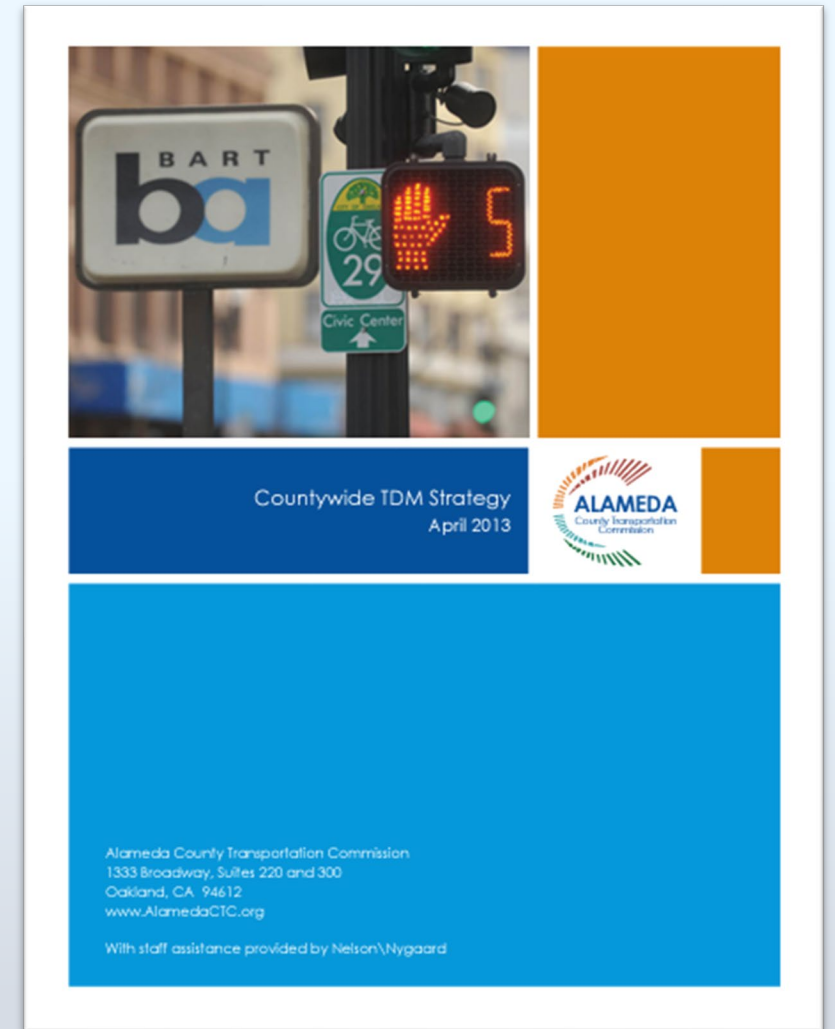
Related Plans & Programs

How is VMT mitigation related to other policies or programs?

- Existing trip reduction ordinances
- Parking & TDM ordinances

→ VMT mitigation can build on existing programs, but quantifying effectiveness should be based on the best available research.

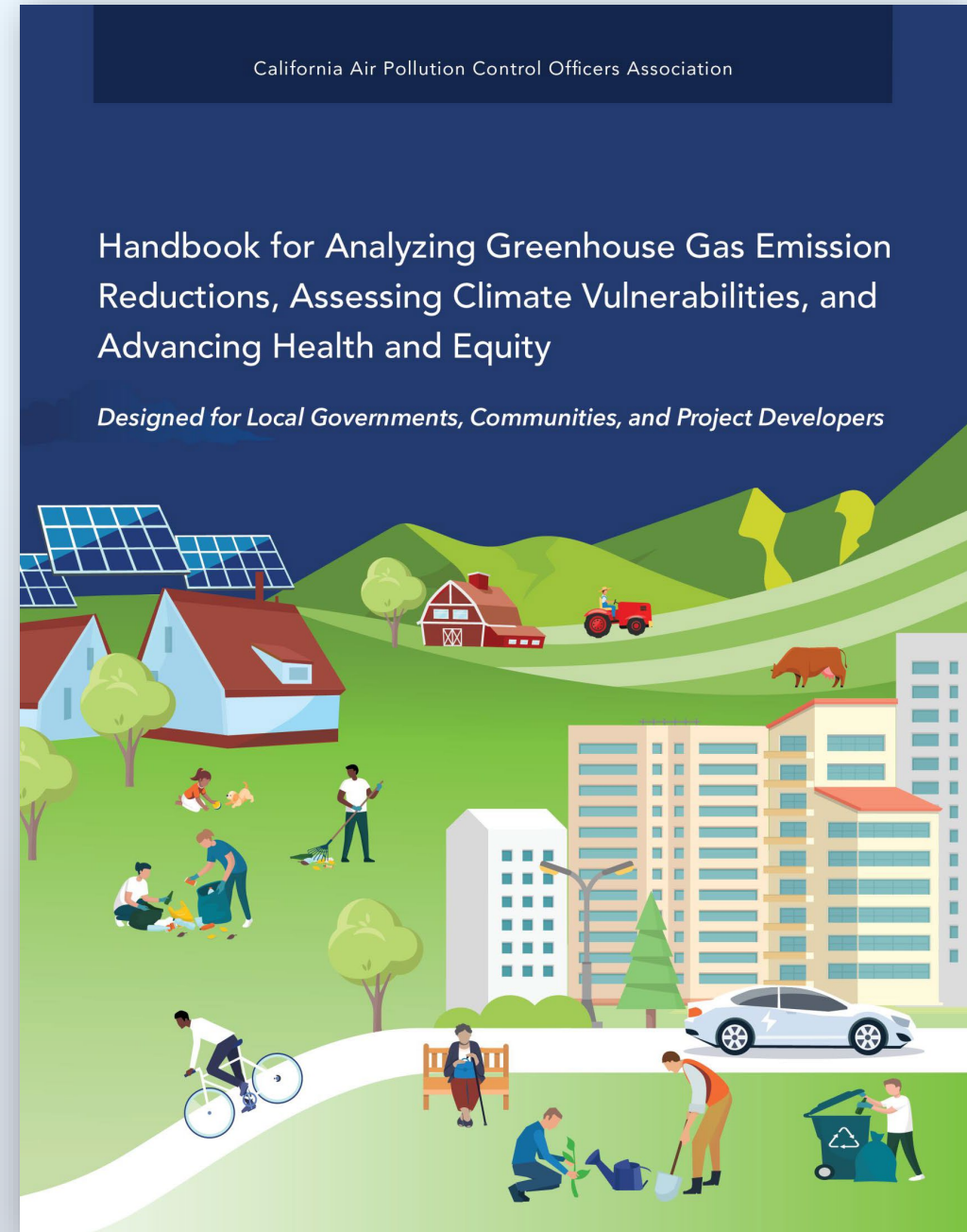
→ Updating existing TDM ordinances is not required



What are some TDM plans, policies or programs that your city already has?

VMT Mitigation Resources

- CAPCOA Handbook Update
- California Emissions Estimator Model (CalEEMod)
- TDM+ tool through Caltrans
- Alameda CTC VMT Reduction Calculator Tool



Alameda CTC VMT Reduction Calculator 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

Project Level Strategies

Commute Programs

Voluntary Commute Program

Mandatory Commute Program

Employer Carpool

Subsidized Transit Passes

Employer Vanpool

Telecommute Program

Land Use Strategies

Transit Oriented Development

Increase Residential Density

Increase Employment Density

Parking Management

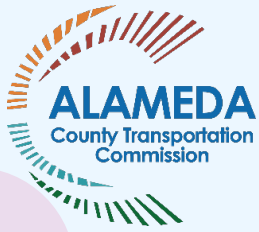
Parking Pricing

Parking Cash-Out

Limit Parking Supply

Provide Bike Parking

City/Community Level Strategies



Neighborhood Enhancement

Street Connectivity

Pedestrian Facility Improvements

Bikeway Network Expansion

Bike Facility Improvement

Traffic Calming Measures

Bikeshare

Carshare

Community Based Travel Planning

Affordable/BMR Housing

Transit Strategies

Transit Service Expansion

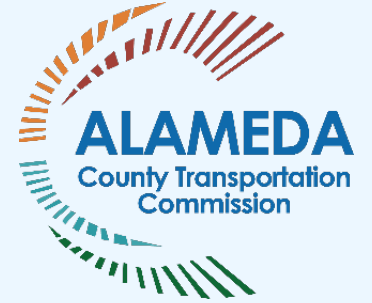
Transit Frequency Improvements

Transit Supportive Treatments

Transit Fare Reduction

Micro-transit/NEV Shuttle

Tool Structure and Functions



- 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

Alameda CTC VMT Reduction Calculator Tool

ALAMEDA CTC VMT REDUCTION CALCULATOR TOOL Version 1.0

I. Overview

The Alameda CTC VMT Reduction Calculator Tool estimates the percent reduction in vehicle miles traveled (VMT) resulting from the application of mobility management strategies. This Excel-based tool is intended to act as a resource for identifying and evaluating the impacts of mobility management strategies as part of the development review and transportation analysis process under CEQA. The tool supports the goals of SB 743 (Steinberg, 2013) by providing jurisdictions and developers with a method for quantifying VMT reductions resulting from implementation of a variety of mitigation strategies at various scales. The tool also supports local government planning efforts including implementation of general and community plans, transportation demand management (TDM) ordinances, and climate action plans.

The tool operates at two geographic scales: project/site-level and community/city-level. Depending on the project location and project type, users can select appropriate strategies of interest for mitigating transportation impacts. Some strategies reduce VMT only from employee commute trips. Other strategies reduce VMT from all project-generated trips or all community/city trips. The type of VMT affected is shown on the Results pages and on the individual strategy pages. Each strategy requires that the user input values that are used to calculate the percent reduction in VMT. For many strategies, the tool offers default parameters that can be replaced with user-provided values if available.

This tool is based on a VMT reduction calculator tool developed by the San Diego Association of Governments (SANDAG), and has been adjusted and customized for application in Alameda County. The tool is available as a resource for local jurisdictions in Alameda County. Local jurisdictions are under no obligation to use this tool in their development approval processes or transportation analyses under SB 743. Users of the tool should exercise their professional judgment in reviewing, evaluating, and analyzing VMT reduction estimate results from the tool. Any action you take upon the information is strictly at your own risk, and neither Alameda CTC nor its employees, contractors and consultants will be liable for any losses or damages in connection with use of these data and this tool.

The Mobility Management Strategy Guidebook serves as a supplement to this tool. The Guidebook includes summary descriptions and resources for a variety of mobility management strategies. For more information visit: <https://www.alamedactc.org/planning/sb743-vmt/>

II. Important Disclaimers

Tool Purpose

This tool, and the accompanying documentation, are intended to act as a resource for evaluating and quantifying the impacts of mobility management strategies as part of the development review and transportation analysis process under CEQA. The tool will support the goals of SB 743 (Steinberg, 2013) by providing jurisdictions with a resource to quantify VMT reductions resulting from implementation of mitigation strategies. The tool also supports local government planning efforts including implementation of general and community plans, transportation demand management (TDM) ordinances, and climate action plans. Users of the tool should exercise their professional judgment in reviewing, evaluating and analyzing VMT reduction estimate results from the tool.

Accuracy of Default Neighborhood/City Data

Users of the tool can override the default data to reflect project conditions and characteristics. The default data found in this tool have been extracted from an Alameda CTC Travel Demand Forecasting Model scenario run (May 2019 version; base year 2020) in support of the Regional Transportation Plan. The scenario used for the extraction is subject to be rerun with updated inputs and methodologies, thus the data in this tool are subject to change. The methodologies used to calculate the VMT data have been developed by Alameda CTC in accordance with State of California guidelines.

The accuracy and reliability of the data in this tool diminishes with a reduction in activity (population and employment) found within a project-level study area. This tool is not recommended for application in areas with very low land use intensity; the tool will give a warning if a user applies it within such an area. The user should be aware that the tool presents data at the level of individual TAZs and this data should be used with care. Any action you take upon the information is strictly at your own risk, and Alameda CTC will not be liable for any losses or damages in connection with use of these data.

Any action you take upon the information is strictly at your own risk, and neither Alameda CTC nor its employees, contractors, and consultants will be liable for any losses or damages in connection with use of these data and this tool.

III. Instructions

Follow the steps below:

1. Enter project name, address, and type below.
2. Select the location of analysis by entering the number of the Transportation Analysis Zone (TAZ) containing the project.
3. Numerous mobility management strategies are available for consideration. Click on a strategy of interest by selecting the strategy name. The hyperlink will take the user to that strategy page. Each strategy page requires the user to input data into cells to estimate the percent VMT reduction. See the **Legend** for a display of the different cell styles present in the strategy pages.
4. Using hyperlinks, the user can navigate to the Results page to see the individual strategy and cumulative results.
5. Additional strategies can be selected, and the Results page will reflect the combined impact of multiple strategies. If the user does not want to include a strategy with the cumulative results, click "Exclude from Results" on the strategy page (see **Legend**).
6. Once the user has reviewed the individual strategy and cumulative results on the Results page, print the Results page for a summary of project information, percent VMT reduction, and literature

IV. Legend

Below are the different cell styles the user will see in the formulae of the strategy pages. Not all strategies use each cell style.

constant, coefficient, or default	= constant, coefficient, or default value, locked
user input	= required user input, values may be restricted, unlocked
user input, optional	= optional user input, values may be restricted, unlocked
calculation	= intermediate calculation in formula, locked
% change in VMT	= strategy output, locked
% change in VMT, max c	= strategy output, max achievable reduction, may be capped, locked
% change in VMT, incre	= strategy output, VMT increase, may be capped, locked
<input type="checkbox"/> Exclude from Results	= optional user input, check box to exclude a strategy output from results

[Main](#) | [FAQs](#) | [Results](#) | [Conflict Info](#) | [1A VCTR program](#) | [1B CTR program](#) | [1C ca ...](#)

<https://www.alamedactc.org/planning/sb743-vmt/>

Alameda CTC VMT Reduction Calculator Tool—Design Document

Prepared for:
Alameda CTC

June 2021

SF20-1105



VMT Mapping Resources

- VMT Mapping Resources
 - VMT per Capita 2020 and 2050
 - VMT per Employee 2020 and 2040
- VMT Tables
 - VMT Estimation Method and Dictionary
 - VMT Summary Tables
 - 2020 VMT TAZ Tables
 - 2040 VMT TAZ Tables
- VMT Maps
 - Alameda CTC Mapping Tool
 - Maps: Countywide, North Planning Area, Central Planning Area, East Planning Area and South Planning Area, per Capita and per Employee at TAZ levels

ALAMEDA County Transportation Commission

Alameda County Transportation Commission

Select Language LOGIN | SUBSCRIBE

Planning > SB 743 and VMT Tool

SB 743 AND VMT TOOL

Alameda CTC is supporting member agencies as they implement Senate Bill 743 requirements through providing resources on this webpage. Resources can be accessed in the blue bars below. These include the Alameda County VMT Reduction Estimator Tool, VMT Mapping Resources, and general resources on SB 743.

- Alameda County Vehicle Miles Traveled Reduction Calculator Tool +
- VMT Mapping Resources +
- SB 743 General Information +

Additional Resources at Alameda CTC Webpage

www.alamedactc.org/planning/sb743-vmt/

VMT Mitigation Policy

After adopting thresholds and screening criteria, what VMT mitigation guidance should you provide?

Recommended an analytical approach for calculating mitigation effectiveness to remove guesswork:

- Use locally appropriate VMT mitigation tool, if available, or
- Reference resources for effectiveness calculations (e.g., CAPCOA or the latest available TDM research)

VMT Mitigation Policy

What other TDM or mitigation guidance would be helpful?

1. Review local TDM ordinance or requirements and determine if they need to be updated
 - Start by comparing local requirements to the list of CAPCOA measures presented at the end of the Module 2 memorandum
2. Identify off-site mitigation measures when impacts can't be mitigated on-site
 - VMT fee or exchange programs. For more information, see Module 3 memo template.

Module 2 Template

- Access [here](#)

Module 3 Preparation – VMT Mitigation Assessment

This table is intended to spark staff-level conversations about the types of VMT mitigation that are appropriate for your jurisdiction in preparation for Module 3, which will focus on VMT mitigation.

The CAPCOA handbook (https://www.caleemod.com/handbook/full_handbook.html) is a resource for California communities and developers to leverage in quantifying GHG emissions and VMT reductions. Using the latest research, handbook authors outline different GHG mitigating measures and how to estimate their predicted effectiveness in one's own jurisdiction.

Review of VMT Mitigation Strategies

CAPCOA 2021 ID	VMT Reduction Measure	Type of VMT Affected	Score 1 - most applicable 2 - somewhat applicable 3 - least applicable N/A	Notes (Related policies/plans/programs, opportunities for coordination, considerations for implementation, etc.)
Land Use – Higher Effectiveness				
T-1	Increase Residential Density	Project-generated trips		
T-2	Increase Job Density	Project-generated trips		
T-3	Provide Transit-Oriented Development	Project-generated trips		
T-4	Integrate Affordable and Below Market Rate Housing	Project-generated trips		
T-17	Improve Street Connectivity	All neighborhood/city trips		
Trip Reduction Programs – Medium Effectiveness				
T-5, T-6, T-7,	Implement Commute Trip Reduction Program	Employee commute trips		
T-8, T-11	Providing Rideshare and Vanpool Programs	Employee commute trips		
T-9	Implement Subsidized or Discounted Transit Program	Employee commute trips		
T-10	Provide End-of-Trip Bicycle Facilities	Employee commute trips		
T-12	Price Workplace Parking	Employee commute trips		
T-13	Implement Employee Parking Cash-Out	Employee commute trips		
T-23	Community-Based Travel Planning	Household trips		
Parking or Road Pricing/Management – Medium Effectiveness				
T-15	Limit Residential Parking	Project-generated		

Module 3 Template

- Access [here](#)

Table 1 below summarizes staff's recommendations for the tools that development and transportation projects should use to mitigate VMT impacts. **Table 2** presents follow up actions related to policy and ordinance updates that staff recommend to support VMT mitigation.

Table 1: VMT Mitigation Approach

Project Type	Available Tools and Resources	Staff Recommended Tool	Rationale
Land Use: Residential and Employment Uses	Countywide tool Statewide tools (e.g., CAPCOA, TDM+)		
Land Use: Other projects	Statewide tools (e.g., CAPCOA, TDM+)		
Transportation projects: Capacity increasing (vehicle capacity reducing projects are generally screened out)	Caltrans guidance		

Table 2: Additional Actions VMT Mitigation Policies and Ordinances

Policy, Program or Ordinance Type	Relationship to VMT Mitigation	Staff Recommendation	If yes, identify responsible City department
Provide programmatic guidance through one or more of the following: A) Identify menu of locally appropriate TDM measures, A) Adopt a local TDM ordinance, and/or B) Participate in a countywide TDM program	Provides locally appropriate guidance on TDM implementation, monitoring, and administrative requirements		
Update local parking standards	Reduced parking supply compared to traditional parking minimums can reduce VMT		
Update or create a transportation impact fee based on VMT	LOS-based TIF programs may increase VMT, while VMT TIF programs could reduce VMT		
Participate in a countywide or regional VMT mitigation fee program	Allows projects to fund off-site VMT-reducing improvements at a regional or countywide scale		
Create a local VMT mitigation fee program	Allows projects to fund off-site VMT-reducing improvements at a city scale		

Discussion

What other questions or concerns do you have about VMT mitigation?
Any questions about the Module 3 memo template?

Break

(5 minutes)

Adoption Strategy & Implementation Considerations

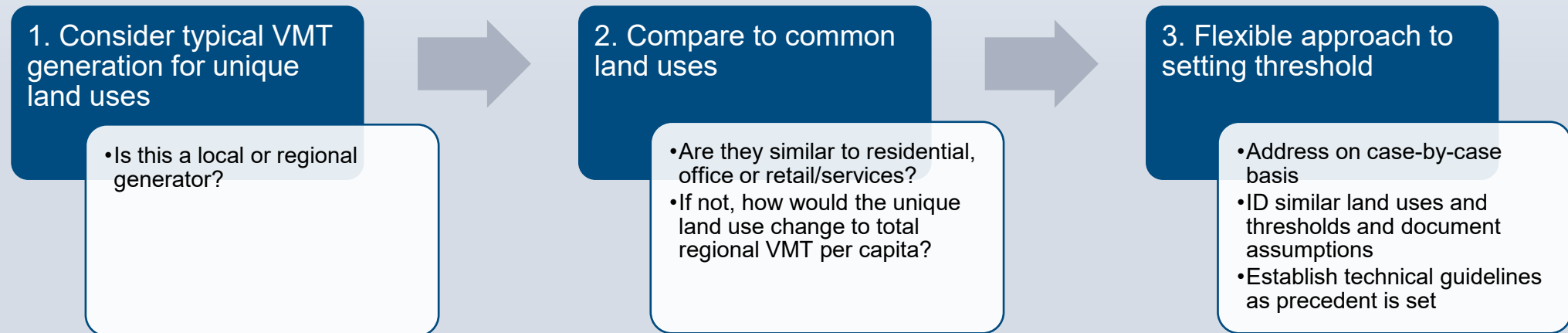
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Goals for this Program

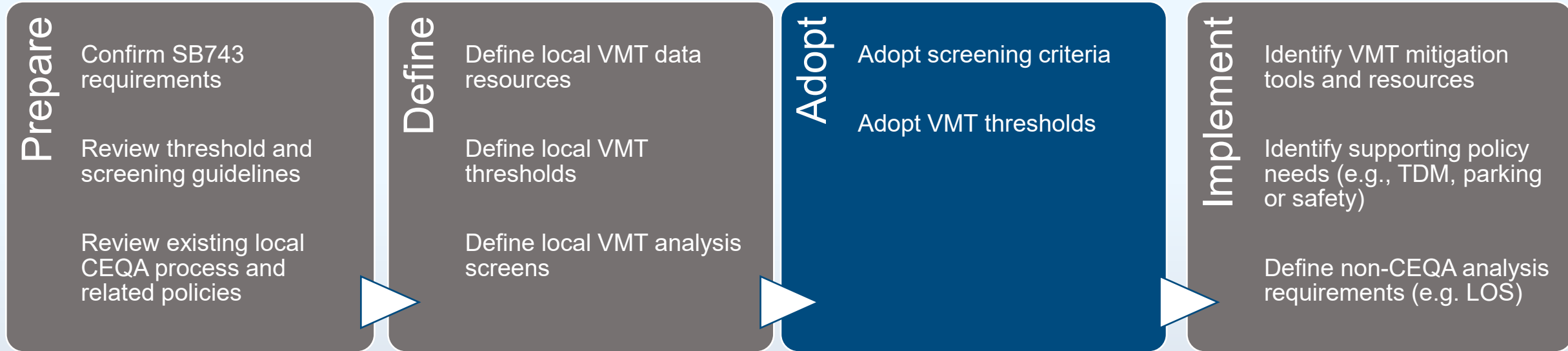
“Get the basics done first, then tackle the challenging stuff”

1. Streamline VMT analysis for common land uses
2. Establish a basis on which to guide future decisions about more complicated or unique land uses, which would include:

VMT Process for Unique Land Uses



Steps to SB 743 Compliance



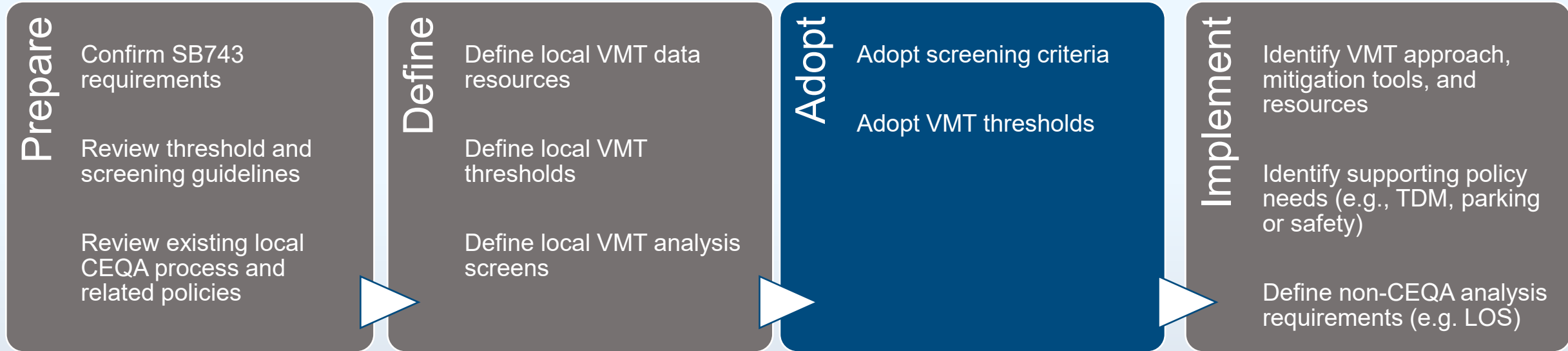
**Typical
Engagement**

Internal Staff

Decision Makers

*Internal Staff, may
need decision
maker input*

Steps to SB 743 Compliance



Typical Engagement

Internal Staff

Decision Makers

Internal Staff, may need decision maker input

Level of Effort



Petaluma, Fremont

Technical Advisory Committee (TAC) or regular cross-department internal teams reviewed details

Planning Commission & Council study sessions and adoption hearings

Local VMT mitigation, TDM ordinance, transportation review guidelines to address CEQA and non-CEQA

Milpitas, Vacaville

Staff reports based on internal discussions

Planning Commission & Council presentation

General Plans used to evaluate other related policies

Steps to Adoption: Engaging Decision Makers

TA Materials:

- **Presentations:** Short council adoption or long study session
- **Staff reports and resolutions:** Templates and policy adoption language
- **Internal guidance documents**

What additional documents, tools, or resources would support you in moving forward with VMT policy adoption?

RESOLUTION NO. _____

**RESOLUTION OF THE CITY COUNCIL OF THE CITY OF
CHULA VISTA ADOPTING THE CHULA VISTA
TRANSPORTATION STUDY GUIDELINES IMPLEMENTING
SENATE BILL 743**

WHEREAS, Senate Bill 743, which replaces Level of Service (LOS) with Vehicle Miles Traveled (VMT) as the metric for determining the significance of transportation impacts under the California Environmental Quality Act (CEQA), requires municipalities to adopt guidelines to implement the provisions of SB 743 by July 1, 2020; and

WHEREAS, the guidelines will assist applicants, professionals, City personnel, and other stakeholders to prepare, review, and process CEQA transportation studies as required by SB 743; and

WHEREAS, in accordance with Resolution 2019-236, the City retained a multidisciplinary consulting team led by Fehr & Peers, a recognized expert in the area of SB 743 implementation, to advise City staff in developing the Transportation Study Guidelines; and

WHEREAS, the development of the Transportation Study Guidelines involved review of a wide range of guidance documents and practices, including the Governor's Office of Planning and Research's Technical Advisory; the Institute of Transportation Engineers' Guidelines for Transportation Impact Studies in the San Diego Region; and implementation procedures developed by other agencies; and

WHEREAS, the development of the Transportation Study Guidelines carefully considered the unique characteristics and community values of the City of Chula Vista; and

WHEREAS, the Transportation Study Guidelines provides specific direction for conducting a Transportation Study for CEQA review, and provides guidance on VMT estimation, thresholds of significance, and procedures for screening certain projects considered unlikely to have a significant impact; and

WHEREAS, the Transportation Study Guidelines also provides direction on how to analyze a project's effect on transit, pedestrian, and bicycles facilities, and on LOS; and

WHEREAS, the Transportation Study Guidelines may be modified from time to time with the approval of the City Manager or designee.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Chula Vista, that it adopts the City of Chula Vista SB 743 Transportation Study Guidelines.

Presented by _____ Approved as to form by _____

Kelly G. Broughton, FASLA
Development Services Director

Glen R. Googins
City Attorney

Review Public-Facing Materials

Next Steps

4

What's Next

- Feedback survey: https://www.surveymonkey.com/r/Module3_MTCVMT
- Office hours – *Wednesday, 10/5, 10-12*
 - *“Learn from an early adopter”*
 - *VMT mitigation tools*
 - *Walk through memo templates and public-facing materials*
- Module 4 – *Tuesday, 10/18, 10-12*

Thank you!

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