

Date: December 17, 2021  
Current Meeting: January 20, 2022  
Board Meeting: N/A

## BOARD MEMORANDUM

**TO:** Santa Clara Valley Transportation Authority  
Congestion Management Program & Planning Committee

**THROUGH:** General Manager/CEO, Carolyn M. Gonot

**FROM:** Chief Planning and Programming Officer, Deborah Dagang

**SUBJECT:** Update on SB 743 LOS-to-VMT Transition

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### FOR INFORMATION ONLY

#### **EXECUTIVE SUMMARY:**

- The purpose of this item is to share the latest information about the transition from Level of Service (LOS) to Vehicle Miles Traveled (VMT) in transportation analysis per California Senate Bill (SB) 743. This is an Information item, and no action is required by VTA Committees at this time.
- The use of VMT for analysis of land use projects under the California Environmental Quality Act (CEQA) became mandatory on July 1, 2020, and Caltrans began requiring the use of VMT for projects that increase roadway capacity on the State Highway System on September 15, 2020.
- VTA prepared estimates of Base VMT (including jurisdictional VMT averages and “heat maps”) across Santa Clara County using the VTA travel demand model, to assist Member Agencies in setting VMT thresholds to comply with SB 743.
- VTA developed a countywide, web and Geographic Information Systems (GIS)-based VMT Evaluation Tool for Land Use Projects that Member Agencies can use in CEQA evaluation of land use projects. This tool was initially launched in May 2020, and Version 2 of the tool was released in September 2021.
- As of Fall 2021, nine Member Agencies have adopted VMT policies to comply with SB 743, while the remainder are performing VMT analysis on an ad hoc basis for the time being, as permitted by state law and CEQA practice. VTA and Member Agency staff are now beginning to strategize on how to identify and implement more effective VMT mitigation measures.

## **STRATEGIC PLAN/GOALS:**

VTA staff's efforts highlighted in this item align well with the VTA 2017-2022 Strategic Plan. The work to facilitate the implementation of SB 743 falls under ***Business Line 3 - Transportation System Management***, and VTA's role as the Congestion Management Agency for Santa Clara County. This effort demonstrates ***Creativity*** by establishing new, innovative resources for Member Agencies to use in SB 743 implementation; it highlights VTA's ***Collaboration*** with Member Agencies, transportation and environmental consultants, developers and advocacy organizations; and it showcases VTA's ***Leadership*** in establishing a first-of-its-kind tool launched in advance of the State's SB 743 deadline.

## **BACKGROUND:**

Senate Bill (SB) 743, approved by the California Legislature in September 2013, included changes to the California Environmental Quality Act (CEQA) and Congestion Management Program (CMP) law related to the analysis of transportation impacts. The bill directed the Governor's Office of Planning and Research (OPR) to develop alternative metrics to replace the use of vehicular Level of Service (LOS) for evaluating the transportation impacts of projects under CEQA. OPR determined that the primary metric to replace the use of LOS in CEQA will be Vehicle Miles Traveled (VMT).

Between December 2013 and November 2017, OPR released four rounds of guidance on implementing SB 743. In December 2018, the California Natural Resources Agency finalized amendments to the CEQA Guidelines which included changes to implement SB 743. At the same time, OPR released an updated *Technical Advisory on Evaluating Transportation Impacts in CEQA*. These materials are available at <https://files.resources.ca.gov/ceqa/> and <https://opr.ca.gov/ceqa/sb-743/>. The use of VMT for analysis of land use projects under CEQA became mandatory on July 1, 2020, and Caltrans began requiring the use of VMT for projects that increase roadway capacity on the State Highway System on September 15, 2020.

Santa Clara Valley Transportation Authority (VTA) staff brought information items to the Technical Advisory Committee (TAC), the Policy Advisory Committee (PAC) and the Congestion Management Program & Planning Committee (CMPP) after each round of draft guidance from OPR, and most recently brought an item to Board Committees in October 2020.

The following sections provide further background information on how SB 743 is changing transportation analysis of proposed projects; VTA and countywide efforts related to SB 743; and key countywide resources prepared by VTA to help Member Agencies.

### **SB 743 Changes to Transportation Analysis**

For a number of years, environmental review of proposed projects under CEQA relied on vehicular LOS, a measure of vehicular delay or congestion, as a primary measure of transportation impact. Lead Agencies analyzed LOS for proposed projects, disclosed impacts if

the LOS exceeded an established threshold, and identified mitigation measures for the impacts where feasible. SB 743 initiated a major change in CEQA transportation analysis. The legislation states that “Automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment” (PRC 21099 (b) (2)). With the implementation of SB 743, VMT is the new primary metric for CEQA transportation analysis of land use projects statewide, as well as for CEQA analysis of capacity-increasing transportation projects on the State Highway System.

State CMP law still calls for the use of vehicular LOS in monitoring the performance of key transportation facilities and in analyzing transportation impacts of proposed land use developments, in urbanized counties that have a CMP. VTA, as the Congestion Management Agency (CMA), maintains the CMP for Santa Clara County in partnership with its 16 Member Agencies. The VTA CMP establishes a minimum standard of LOS E for CMP facilities. SB 743 amends CMP law to reinstate the ability of cities and counties to designate “Infill Opportunity Zones” where the CMP LOS standard would not apply (Government Code 65088.4). These zones may be established within one-half mile of a major transit stop or a high-quality transit corridor with 15-minute or better service frequencies.

SB 743 does not preclude local agencies from applying LOS in General Plan policies, zoning codes, conditions of approval, or any other planning requirements pursuant to the police power or other authority. In other words, local agencies can retain LOS for a number of purposes, including transportation impact analysis studies, but cannot apply it to CEQA analysis. Many Member Agencies have previously established LOS thresholds for local facilities and expect to continue to analyze LOS for local purposes even with the implementation of SB 743.

#### VTA and Countywide Efforts Related to SB 743 Implementation

SB 743 has significant implications for VTA as a CMA, transit agency, and CEQA Lead Agency on transit and roadway capital projects. It also has impacts on VTA’s Member Agencies as CEQA Lead Agencies on land use and transportation projects. Over the past several years, VTA staff has been taking a leadership role in helping guide the implementation of SB 743, and Member Agencies have been coordinating with VTA and working on their own implementation of SB 743. It is important to remember that VTA’s authority to guide transportation analysis is tied to its CMA role. ***Each Lead Agency should consult with CEQA experts and legal counsel regarding their own CEQA practices and updates to local policies to implement SB 743.***

Countywide efforts related to SB 743 include the following:

- VTA convened a multidisciplinary LOS-to-VMT Ad Hoc Working Group of VTA and Member Agency staff (including staff from Planning, Public Works, and Transportation departments) from early 2018 through mid-2020.
- VTA prepared estimates of Base VMT (including jurisdictional VMT averages and “heat maps”) across Santa Clara County using the VTA travel demand model, to assist Member Agencies in setting VMT thresholds to comply with SB 743.
- VTA developed a countywide, web and Geographic Information Systems (GIS)-based

VMT Evaluation Tool for Land Use Projects that Member Agencies can use in CEQA evaluation of land use projects.

- Member Agencies have been conducting analysis and developing options for VMT thresholds, screening criteria, and analysis practices, as well as identifying what type of non-VMT transportation analysis of proposed projects will be conducted for local purposes.
- VTA participated in the Caltrans-led process of determining how VMT will be applied to capacity-increasing transportation projects, and also adjusted VTA's own CEQA practices on all transportation capital projects to meet SB 743 requirements.

### Highlights of Countywide VMT Resources Prepared by VTA

#### *2015 Base VMT Estimates from the VTA Model*

As noted above, VTA prepared estimates of Base VMT across Santa Clara County using the VTA travel demand model. These estimates were prepared for a base year of 2015, which is the latest year for which a back-cast of population, jobs and households are available from the Association of Bay Area Governments (ABAG) and for which other empirical data such as roadway traffic volumes and transit ridership are available to help calibrate and validate the model. From this modeling, VTA estimated that Residential VMT per Capita (Home-Based VMT for all trip purposes, divided by total population) across Santa Clara County is 13.33 VMT per person, per weekday. For non-residential land uses, VTA estimated that Employment VMT Per Job (Home-Based Work VMT, divided by total jobs) across Santa Clara County is 16.64 VMT per job, per weekday. At the January 2022 committee meetings, VTA staff will provide other brief highlights of these Base VMT estimates, which Member Agencies are using in setting their VMT thresholds to comply with SB 743.

#### *Santa Clara Countywide VMT Evaluation Tool for Land Use Projects*

In discussions between VTA and Member Agencies in 2018, a need was identified to develop a tool that Member Agencies could use to evaluate VMT for land use projects to help implement SB 743 consistently across the county. In response to these discussions, VTA developed a countywide, web and Geographic Information Systems (GIS)-based tool, called the Santa Clara County VMT Evaluation Tool. This tool was initially launched in May 2020, and Version 2 of the tool was released in September 2021. The tool is available at <https://vmttool.vta.org/>

The VMT Evaluation Tool helps users conduct a baseline VMT screening evaluation for small-to medium-sized residential, office and industrial land use projects in Santa Clara County. The Tool is capable of evaluating these land uses individually, in combination with each other, and with or without local-serving retail. The Tool screens land use projects to determine whether further VMT analysis is necessary by identifying whether projects fall within a low-VMT area according to the applicable jurisdiction's VMT threshold, and/or whether they fall within proximity to transit. The Tool estimates the project-generated VMT for the proposed development using VMT data from the travel demand model at the specific project location, and calculates project-generated VMT after reductions from certain VMT-reducing measures have

been applied.

More information about VTA and countywide efforts as well as resources on SB 743 implementation is available at <https://www.vta.org/los-vmt>. VTA staff continues to be available as a resource through virtual meetings and phone consultations upon request

## **DISCUSSION:**

Staff is bringing this item to share information on recent milestones and upcoming efforts in the implementation of SB 743 in Santa Clara County. These milestones and efforts include the release of Version 2 of the Santa Clara Countywide VMT Evaluation Tool; adoption of local VMT policies; and efforts to strengthen VMT mitigation measures. At the January 2022 committee meetings, VTA staff will provide a brief presentation on these items including a short walk-through of Version 2 of the VMT Evaluation Tool.

### Release of Santa Clara Countywide VMT Evaluation Tool Version 2

As noted above, the first version of the Countywide VMT Evaluation Tool was released in May 2020. In November/December 2020, VTA staff solicited feedback from Member Agency staff about possible improvements to the tool. VTA staff also reviewed input from the web feedback form linked from the tool, as well as items from Alpha and Beta testing in Spring 2020 that could not be addressed due to time constraints. VTA staff worked with its consultant, Fehr & Peers, to determine what improvements would fit in the limited budget for this round of updates.

Key updates incorporated in Version 2 of the tool include:

- Upgraded Results screen and Report PDF (including addition of Project Location Map, clarification of Threshold Value, and reduction of pages)
- User interface changes requiring less repetitive work, minor text edits in prompts and “tool-tips”, and addition of notes indicating which input fields are required
- Addition of capability to interpolate VMT threshold values for Baseline Years between 2015 and 2040
- Accessibility Modifications (including improvements to screen-reader accessibility, and auto-generation of an accessible Report PDF)

No changes to the base VMT data or the VMT reduction calculations have been made between the Launch Version and Version 2, except for one minor correction which is noted in the technical documentation provided to staff and consultants.

### Adoption of Local VMT Policies and Practices

VTA’s Member Agencies are continuing to make substantial progress in implementing the major changes in transportation analysis called for in SB 743. As of Fall 2021, nine Member Agencies have adopted VMT policies to comply with SB 743, while the remainder are performing VMT analysis on an ad hoc basis for the time being, as permitted by state law and CEQA practices. Staff at many Member Agencies report that they or their consultants are using the Countywide VMT Evaluation Tool for project evaluation, or plan to begin doing so in the near future.

### Efforts to Strengthen VMT Mitigation Measures

VTA and Member Agency staff are now beginning to strategize on how to identify and implement more effective VMT mitigation measures. Measures to reduce VMT from development projects may include changing the project land use (e.g., increasing the percentage of affordable units in a residential development); adding multimodal infrastructure such as pedestrian or bicycle improvements beyond a project's frontage; reducing the amount of automobile parking; or including Transportation Demand Management measures such as transit passes, vanpool incentives, or pricing of workplace parking.

Many Member Agencies are beginning to incorporate measures such as those listed above to reduce VMT from development projects in response to SB 743-required VMT analysis. Challenges to implementing such measures exist, particularly in finding appropriate VMT mitigation measures that match the scale of an individual development project. Around the state, there are initial efforts to develop programs called VMT Exchanges or Banks that would make it more feasible to implement VMT mitigation measures on a broader scale, including potentially pooling mitigation measures or funds for cross-jurisdictional projects. VTA and Member Agency staff are now looking at opportunities to explore a program like this in Santa Clara County, including pursuing grant funding sources.

### **CLIMATE IMPACT:**

As an Information item, this item does not have a direct impact on climate change. However, the efforts highlighted in this item have the potential to reduce Greenhouse Gas Emissions (GHG) by helping implement SB 743. One of the main objectives of SB 743 is the reduction of GHG; SB 743 changes the way proposed projects are evaluated under CEQA and emphasizes the reduction of VMT.

Prepared By: Rob Swierk  
Memo No. 7977

# Update on SB 743 LOS-to-VMT Transition

VTA TAC, CAC, BPAC, PAC

January 2022

# Summary

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- Staff is bringing this Information item to provide an update on the implementation of Senate Bill 743, and to help VTA Committee members in their roles in their own communities.
- VTA has produced several countywide resources to help cities and the County, including new releases in the past few months.
- VTA Member Agencies are adopting policies to make this transition, and VTA and agencies are strategizing on more effective mitigation to reduce Vehicle Miles Traveled (VMT).
- More information is available at <https://www.vta.org/los-vmt>.



# Background: LOS and VMT

- **Vehicular Level of Service (LOS)** is a way of measuring transportation performance that focuses on delay and congestion; letter scale from A to F
- **Vehicle Miles Traveled (VMT)** measures the total amount of vehicular travel across the system, rather than at specific points; usually shown as average daily VMT per person

# Senate Bill 743 Overview and Recent Milestones

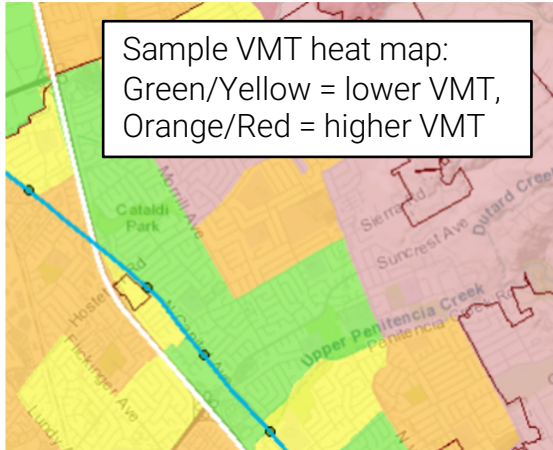
SB 743 Overview – changes to California Environmental Quality Act (CEQA):

- **“Automobile delay**, as described solely by level of service or similar measures... **shall not be considered a significant impact on the environment...”**
- New CEQA Transportation metric is **VMT** – aligns with climate goals

Recent Milestones:

- Dec 2018 – State adopted new CEQA Guidelines
- May 2020 – VTA released Countywide VMT Evaluation Tool
- July 2020 – Lead Agencies required to use VMT for land use projects in CEQA
- **Fall 2021 – VTA released Version 2 of VMT Evaluation Tool, updated documentation**

# Countywide VMT Resources Provided by VTA



2015 VMT estimates and “heat maps” from VTA travel demand model

**Santa Clara Countywide VMT Evaluation Tool - Version 2**

Select Project Area

Find address or place

Select Jurisdiction (required)

Which jurisdiction rules do you want to follow

Jurisdiction \* San Jose

Select Project Area (required)

Zoom in to your project location. Click on the appropriate button (Add/Remove/Clear) below, then click on the map and select the parcel(s) that represent your project area. Alternatively, you can type the APN in the box below. For multiple APNs, type in one at a time, press enter, and repeat this process for each new APN. Each entry will be added to your project location (maximum 25 parcels).

Add Remove Clear Selection

Type in APN # and click to select or select using keyboard

The screenshot shows a web-based interface for the VMT evaluation tool. It includes a search bar, a map with a blue highlighted parcel, and several control buttons for adding, removing, and clearing selections. The interface is titled 'Santa Clara Countywide VMT Evaluation Tool - Version 2'.

Santa Clara Countywide VMT Evaluation Tool for land use projects

**Santa Clara Countywide VMT Evaluation Tool - Version 2: Frequently Asked Questions (FAQs)**  
(December 28, 2021)

**Santa Clara Countywide VMT Evaluation Tool - Version 2: Quick Start Guide**  
(September 24, 2021)

**WHAT IS THE SANTA TOOLS?**  
The Santa Clara Countywide VMT Evaluation Tool (VMT Evaluation Tool) brought to you by the Santa Clara Valley Transportation Authority (VTA), in collaboration with the 15 cities and towns of Santa Clara County, and the County of Santa Clara. Version 2 of the tool, released in September 2021, can be accessed at [vmttool.vta.org](https://vmttool.vta.org).

**WHAT DOES THIS TOOL DO?**  
The VMT Evaluation Tool is designed to assist you in screening and estimating project-generated VMT for certain types of and use projects in Santa Clara County, and calculating VMT reductions associated with certain VMT-reducing measures. The tool is intended for use on three primary end-uses:

- Residential
- Office
- Industrial

The tool evaluates projects with one or a combination of these uses, with or without land-serving retail.

**LIMITATIONS OF THE VMT EVALUATION TOOL**  
The VMT Evaluation Tool only covers some of the possible screening criteria that a city or county may establish for land use project VMT analysis per California Senate Bill 743. Other land use types, large or complex projects, or large-scale and use projects will likely require other methods for VMT analysis. Before making any decisions using the information provided by the VMT Evaluation Tool, it is recommended that you contact the city/county in which the proposed development is located. Please refer to the User Agreement dated May 20, 2020 (available within the tool at [vmttool.vta.org](https://vmttool.vta.org)) for more information.

**RUNNING THE VMT EVALUATION TOOL - 4 BASIC STEPS**  
The following are the four basic steps required to complete the VMT Evaluation Tool:

- 1. Select Project Area**  
Choose what "use" to follow, select the parcel(s) that make up your project location, and view related transportation information and transportation system.
- 2. Determine Screening Inputs**  
Select what end use to analyze, data and info, and view related other parameters.
- 3. Land Use Info & VMT Reductions**  
Enter residential units and non-residential square footage, and select VMT reduction measures.
- 4. Results / Report**  
View results in table and bar chart form, download a PDF report, and export VMT data tables.

If you only wish to screen a site (i.e., determine whether it is in proximity to transit and/or in a low-VMT area), you may skip Step 3 by clicking the "Project Screening Only" button on the second screen.

Documentation (Quick Start Guide, FAQs, website)

# Santa Clara Countywide VMT Evaluation Tool

- VTA, in coordination with Member Agencies, developed a web-based VMT Evaluation Tool to screen and evaluate VMT generated by land use projects
- Covers three main land uses:
  - Residential
  - Office
  - Industrial
- Intended to be one part of a Lead Agency's land use evaluation process under SB 743
- The tool was launched in May 2020, and Version 2 was released in September 2021 - at <https://vmttool.vta.org>

# What's New in Version 2 of the VMT Tool

Key updates based on user feedback and testing:

- Upgraded Results screen and report PDF
- User interface improvements
- Accessibility modifications
- Improvements to prompts, instruction windows, and “tool-tips”
- Added capability to interpolate VMT thresholds btw / 2015 and 2040
- Back-end database clean-up and code review

# Santa Clara Countywide VMT Evaluation Tool

Valley Transportation Authority

## Santa Clara Countywide VMT Evaluation Tool - Version 2

USER AGREEMENT REPORT A PROBLEM/FEEDBACK

### Select Project Area

**Select Jurisdiction (required)** ⓘ

Which jurisdiction rules do you want to follow

**Jurisdiction \*** San Jose ▾

**Select Project Area (required)**

Zoom in to your project location. Click on the appropriate button (Add/Remove/Clear) below, then click on the map and select the parcel(s) that represent your project area. Alternatively, you can type the APN in the box below. For multiple APNs, type in one at a time, press enter, and repeat this process for each new APN. Each entry will be added to your project location (maximum 25 parcels).

**Add** **Remove** **Clear Selection**

OR

Type in APN # and click to select or select using key 🔍

**Selected APNs**

- 70608026

**Enrich Map with Layers**

Find address or place 🔍

Select Project Area screen

Esri, NASA, NGA, USGS, FEMA | Esri Community Maps Contributors | City of San Jose, County of Santa Clara, Santa Cruz County, © OpenStreetMap, ... Powered by Esri

# Santa Clara Countywide VMT Evaluation Tool

**Santa Clara Countywide VMT Evaluation Tool - Version 2**

**Project Information**

Add project specific information here

Project Name \*  
Test Project

Project Description \*  
Hypothetical project

APN Number(s)  
70608026

**Select Base Data**

Data Version \* CSJ 2015 Model

**Analysis Methodology**

Method \* Parcel Buffer Method

**Non-Residential**

- Office KSF
- Local Serving Retail KSF
- Industrial KSF

**Proposed Parking**

- Vehicle
- Bicycle

**VMT Reduction Strategies**

Select and provide information for applicable VMT Reduction strategies. Click on a Tier to expand and show individual strategies. Check the box for any strategy you wish to select, and fill in user inputs for any strategies you check in Tiers 2 through 4. Items that are greyed out are not activated in the chosen jurisdiction, or unavailable due to overlap with another selected strategy.


- Tier 1 Project Characteristics
- Tier 2 Multimodal Infrastructure

**Land Use Info & VMT Reductions screen**

**Determine Screening Inputs screen**

# Santa Clara Countywide VMT Evaluation Tool

Santa Clara Countywide VMT Evaluation Tool - Version 2 - Report



### Project Details

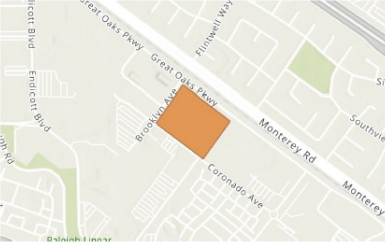
Timestamp of Analysis January 05, 2022, 05:20:15 PM  
 Project Name Test Project  
 Project Description Hypothetical project

### Project Location Map

Jurisdiction: 

APN	TAZ
70609026	664

  
 San Jose



### Analysis Details

Data Version CSJ 2015 Model  
 Analysis Methodology Parcel Buffer Method  
 Baseline Year 2015

### Project Land Use

**Residential:**  
 Single Family DU: \_\_\_\_\_  
 Multifamily DU: \_\_\_\_\_ 200  
 Total DUs: \_\_\_\_\_ 200

**Non-Residential:**  
 Office KSF: \_\_\_\_\_ 100  
 Local Serving Retail KSF: \_\_\_\_\_  
 Industrial KSF: \_\_\_\_\_


**Residential Affordability (percent of all units):**  
 Extremely Low Income: \_\_\_\_\_ 8%  
 Very Low Income: \_\_\_\_\_ 8%  
 Low Income: \_\_\_\_\_ 8%

**Parking:**  
 Motor Vehicle Parking: \_\_\_\_\_ 450  
 Bicycle Parking: \_\_\_\_\_ 250

**Proximity to Transit Screening**  
 Inside a transit priority area? No (Fail)

Sample Report – Project Overview page

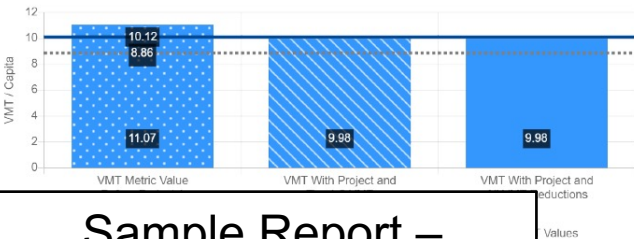
Santa Clara Countywide VMT Evaluation Tool - Version 2 - Report



### Residential Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 1:	Residential
VMT Metric 1:	Home-based VMT per Capita
VMT Baseline Description 1:	City Average
VMT Baseline Value 1:	11.91
VMT Threshold Description 1 / Threshold Value 1:	Citywide Threshold (-15%) / 10.12
Land Use 1 has been Pre-Screened by the Local Jurisdiction:	Yes, Screening Failed

	Without Project	With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	11.07	9.98	9.98
Low VMT Screening Analysis	No (Fail)	Yes (Pass)	Yes (Pass)



Sample Report – Individual Land Use screening page



# Adoption of Local VMT Policies and Practices

VTA's Member Agencies are making progress in implementing SB 743:

- As of Fall 2021, 9 of 16 agencies have adopted VMT policies (remaining agencies doing ad hoc analysis as permitted by law/CEQA)
- Staff at many agencies or their consultants are using Countywide VMT Evaluation Tool for project analysis, or plan to in near future
- Some cities are changing local evaluation (outside of CEQA) as well

# Efforts to Strengthen VMT Mitigation Measures

VTA and Member Agency staff are strategizing on more effective VMT mitigation measures:

- Measures may include changing project land use, adding multimodal infrastructure, reducing automobile parking, and including Transportation Demand Management (TDM) measures
- Challenges exist, especially matching scale of measures to projects
- VTA and Member Agencies are looking at opportunities to explore broader programs such as VMT Exchange or VMT Bank