



County of Tulare

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# SB 743 GUIDELINES

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# County of Tulare



## SB 743 Guidelines

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## EXECUTIVE SUMMARY

This report provides Tulare County's Vehicle Miles Traveled Guidelines (VMT Guidelines or Guidelines) for the implementation of Senate Bill 743 (SB 743) in the unincorporated area of Tulare County. SB 743 was passed by the legislature and signed into law in the fall of 2013. This legislation led to a change in the way that transportation impacts will be measured under the California Environmental Quality Act (CEQA). Starting on July 1, 2020, automobile delay and level of service (LOS) may no longer be used as the performance measure to determine the transportation impacts of land development projects under CEQA and the new performance measure will be vehicle miles traveled (VMT). Although statewide guidance for the implementation of SB 743 has been written by the Governor's Office of Planning and Research (OPR), CEQA allows lead agencies (including Tulare County) the latitude to determine their own methodologies and significance thresholds for CEQA technical studies. The SB 743 Guidelines provided in this report are based on the statewide guidance provided by OPR, but they include clarifications and details tailored for and specific to local conditions in Tulare County.

SB 743 applies to both land development and transportation projects. The VMT analysis methodology for land development projects was developed in order to accomplish the following:

- Meet the requirements of CEQA, including the new SB 743 regulations that were adopted into CEQA in December 2018 and go into effect on July 1, 2020.
- Provide for transportation improvements to be built that benefit Tulare County residents and facilitate travel by walking, bicycling, and transit.
- Provide for analysis and mitigation of VMT impacts in a way that is feasible and within the scale of land development projects in Tulare County.

VMT analysis for land development projects is to be conducted by comparing a project's VMT/capita or VMT/employee to the average VMT/capita or VMT/employee for the traffic analysis zone (TAZ) in which the project is located. Projects that have a VMT/capita or VMT/employee equal to or above the average for the TAZ are required to provide mitigation in the form of relatively low-cost improvement projects that would support travel by bicycling or walking or provide justification that improvements at the regional level are sufficient to mitigate their VMT impacts. Certain projects such as small projects and local-serving retail projects would be presumed to have a less than significant impact and would not be required to do a VMT analysis. It is important to note that goods movement (e.g., the transport of raw or finished products from one location to another, for example, transfer of milk to an ice cream producing plant and then the transfer of ice cream to a distributor or directly to a retailer) is not subject to SB 743 and only passenger trips need to be considered in a VMT analysis.<sup>1</sup>

Transportation projects that are focused on improvements to travel by bicycling, walking, and transit would be presumed to have a less than significant impact (as these modes of travel eliminate or reduce miles travelled by a vehicle) and would not be required to do a VMT analysis. Certain small roadway projects and all roadway projects that are consistent with the General Plan would be presumed to have a

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<sup>1</sup> California Public Resources Code, Section 21000 et seq. Title 14, Division 6, California Natural Resources Agency, Chapter 3, Section 15064.3, subdivision (a), states, 'For the purposes of this section, vehicle miles traveled refers to the amount and distance of automobile travel attributable to a project. Here, the term 'automobile' refers to on-road passenger vehicles, specifically cars and light trucks.' Accessed May 2020 at: [https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2018\\_CEQA\\_FINAL\\_TEXT\\_122818.pdf](https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf).



less than significant impact (as these projects have been anticipated to accommodate projected growth and/or are planned improvements to the roadway system for safety, to meet current roadway standards, or to improve roads that are functionally obsolete). Larger roadway projects that are inconsistent with the General Plan would need to conduct a VMT analysis and would need to consider providing mitigation if the project is forecasted to cause an increase in VMT.

Although VMT will be the performance measure for CEQA transportation studies, California jurisdictions may still require consideration of roadway operational analysis in the project approval process and may condition projects to provide roadway improvements. Guidelines are provided for the evaluation of the effect of projects on roadways, including the determination of required roadway improvements.





# 1 BACKGROUND

This chapter provides background information on Senate Bill 743 (SB 743) and the need to conduct vehicle miles traveled (VMT) analyses for CEQA transportation studies.

## 1.1 SB 743 Legislation

SB 743 was passed by the legislature and signed into law in the fall of 2013. This legislation led to a change in the way that transportation impacts will be measured under the California Environmental Quality Act (CEQA). Starting on July 1, 2020, automobile delay and level of service (LOS) may no longer be used as the performance measure to determine the transportation impacts of land development projects under CEQA. Instead, an alternative metric that supports the goals of the SB 743 legislation will be required. Although there is no requirement to use any particular metric, the use of VMT has been recommended by the Governor's Office of Planning and Research (OPR). This requirement does not modify the discretion lead agencies have to develop their own methodologies or guidelines, or to analyze impacts to other components of the transportation system, such as walking, bicycling, transit, and safety. SB 743 also applies to transportation projects, although agencies were given flexibility in the determination of the performance measure for these types of projects.

The intent of SB 743 is to bring CEQA transportation analyses into closer alignment with other statewide policies regarding greenhouse gases, complete streets, and smart growth. Using VMT as a performance measure instead of LOS is intended to discourage suburban sprawl, reduce greenhouse gas emissions, and encourage the development of smart growth, complete streets, and multimodal transportation networks.

## 1.2 Governor's Office of Planning and Research (OPR) Technical Advisory

The SB 743 legislation designated OPR to write detailed guidelines for implementation. The process of writing guidelines started in January 2014 and concluded in 2018. SB 743 was incorporated into CEQA by the Natural Resources Agency in December 2018 with a required implementation date of July 1, 2020. The incorporation documents included a December 2018 Technical Advisory written by OPR which represents the current statewide guidance for the implementation of SB 743.

Under CEQA, lead agencies can determine their own methodologies and significance thresholds for CEQA technical analyses, but they are also required to provide substantial evidence as a basis of their decisions, if challenged. In its Technical Advisory, OPR generally provides substantial evidence for its recommendation. However, even OPR's recommendations are subject to challenge, and if an agency were to rely on the Technical Advisory recommendations, that agency would need to be prepared to defend the recommendations and produce the substantial evidence. OPR is not in a position to defend the Technical Advisory recommendations on behalf of agencies that choose to use it.

While OPR provides recommendations on many aspects of conducting a CEQA transportation analysis using VMT, OPR's guidance is not comprehensive and some key decisions are left for lead agencies to determine.



### 1.3 Definition of Vehicle Miles Traveled (VMT)

Vehicle miles traveled (VMT) is a performance measure used in transportation planning for a variety of purposes. It measures the amount of vehicle travel in a geographic region over a given period of time. When one vehicle travels a distance of one mile, it generates one vehicle mile traveled. In this Guideline, VMT is measured in terms of vehicle miles traveled per day. In the case of VMT analyses conducted for CEQA transportation studies, the vehicle to be analyzed are autos and light trucks. Goods movement is specifically excluded from a requirement to conduct VMT analysis.

VMT, as used in the Guideline, is often expressed in efficiency measures including VMT/capita and VMT/employee. In order to determine VMT/capita, the total VMT generated per day would be divided by the number of residents in a given area (for example a project, a traffic analysis zone, or all of Tulare County). VMT/employee is calculated similarly using employees rather than residents.

### 1.4 Consistency with Other County Transportation Policies

A key element of the Tulare County's Climate Action Plan (December 2018) is the reduction of VMT. These Guidelines will help support Tulare County's Climate Action Plan through implementation of VMT-reducing strategies at a project level.

In addition to the Climate Action Plan (CAP), the Tulare County General Plan includes a number of goals that relate to climate change, sustainability, and multimodal transportation networks. The implementation of SB 743 will support these goals by measuring the CEQA transportation impacts of land development and transportation projects in terms of vehicle miles traveled. Use of this performance measure will encourage projects to provide improvements that will support walking, bicycling, and travel by transit, all of which will support the County's climate change and sustainability goals. In some cases, project applicants may incorporate multimodal improvements as a project feature and in other cases, they may be encouraged to provide improvements as mitigation for significant VMT impacts.

The Circulation Element of the General Plan identifies a target goal of level of service D (LOS D) for roadway operations. Historically, LOS D has also been used as a significance threshold for CEQA transportation analysis. After July 1, 2020, as specified in SB 743, roadway operations will no longer be an acceptable CEQA significance threshold and the County Circulation Element will be amended to reflect this change. Maintenance of level of service D or better roadway operations will still be an important goal for the County, but actions to achieve this goal will be outside the CEQA process. Chapter 6 of this report provides a recommended methodology for conducting roadway operational analysis and the provision of roadway improvements after the implementation of SB 743.





## 2 PURPOSE AND OBJECTIVE OF VMT ANALYSIS

### 2.1 Purpose of VMT Analysis

Given the information provided in Chapter 1, the purposes of VMT analysis can be stated as follows:

- VMT analysis is needed to meet statewide requirements for transportation analyses conducted under CEQA.
- VMT analysis (along with efforts to reduce VMT) can help support Tulare County's climate goals for climate change, sustainability, and multimodal transportation networks as described in the General Plan and adopted Climate Action Plan.

### 2.2 Purpose of SB 743 Guidelines

The SB 743 Guidelines provide direction to county staff, consultants, and project applicants regarding the methodologies and thresholds to be used for VMT analysis within the unincorporated area of Tulare County. Basic principles for conducting VMT analysis are obtained from OPR's Technical Advisory revisions have been made to reflect local characteristics.

Although these Guidelines are intended to be comprehensive, not all aspects of VMT analysis can be addressed in a single document. County staff will need to use judgment in applying these Guidelines to specific projects and situations. Exceptions and additions to the Guidelines will need to occur on a case-by-case basis.

### 2.3 Coordination with Other Agencies

Preparation of a VMT analysis will require coordination with other agencies as follows:

- Caltrans will review and provide comments on certain VMT analyses, particularly if the project requires a Caltrans encroachment permit or if it is considered to have a substantial effect on state highway facilities (such as freeways, on and off ramps, rural state routes, roundabouts, etc.).
- Although most VMT analyses are expected to be conducted using the methodology included in these Guidelines, it may be determined that a regional travel demand model is the most acceptable methodology for some projects. In these cases, use of the Tulare County Association of Governments (TCAG) model is recommended and coordination with TCAG should occur.
- Additional coordination with adjacent counties and incorporated cities within Tulare County will not typically be necessary to implement SB 743 unless a proposed mitigation measure crosses jurisdictional boundaries. It should be noted that detailed coordination on transportation issues already exists between the county and the incorporated relating to the adoption of development impact fees. Consultation with potentially impacted jurisdictions should occur early in the process to ensure compatible methodologies and ultimate results are mutually agreed upon.



### 3 LAND DEVELOPMENT PROJECTS

This chapter provides guidance on conducting VMT analyses for land development projects, including single-use projects, mixed-use projects, redevelopment projects (i.e. any project that replaces an existing development rather than being built on vacant/undeveloped land), and specific plans.

#### 3.1 Overview of Analysis

The VMT analysis methodology for land development projects was developed in order to accomplish the following:

- Meet the requirements of CEQA, including the new SB 743 regulations that were adopted into CEQA in December 2018 and go into effect on July 1, 2020.
- Provide for transportation improvements to be built that benefit Tulare County residents and facilitate travel by walking, bicycling, and transit.
- Provide for analysis and mitigation of VMT impacts in a way that is feasible and within the scale of land development projects in Tulare County.

The starting point for the VMT analysis provided in these Guidelines was OPR's December 2018 technical advisory. OPR recommends determining the project VMT/capita or VMT/employee and comparing it to regional and/or city-wide averages. For urban, suburban, and rural areas within counties that are part of Metropolitan Planning Areas (MPO's), OPR recommends use of VMT/capita and VMT/employee significance thresholds that are 15% below the relevant averages. OPR also states that for rural areas outside MPO's, significance thresholds may be best determined on a case-by-case basis.

It is important to note that VMT analysis, as described in these Guidelines only applies to passenger travel, not goods movement (as defined earlier). The following (referring to CEQA) is contained in OPR's technical advisory: "Section 15064.3, subdivision (a), states, 'For the purposes of this section, vehicle miles traveled refers to the amount and distance of automobile travel attributable to a project. Here, the term 'automobile' refers to on-road passenger vehicles, specifically cars and light trucks.'" Therefore, trips related to the movement of goods for agricultural or industrial purposes would not be subject to a VMT analysis and would be considered to have a less than significant impact on the transportation system. For projects that include both auto and truck (i.e. goods movement) trips only the auto trips would be analyzed. When determining mitigation measures, only a project's auto trips would be considered.

Building on the OPR guidance, these Guidelines provide a refined VMT analysis specifically tailored to the unincorporated areas within the County of Tulare's jurisdiction. These Guidelines extend OPR's concept of determining significance thresholds for rural areas on a case-by-case basis to Tulare County based on the concept that travel behavior in the small town and rural areas of Tulare County is similar to travel behavior in the rural portions of non-MPO counties.

Project VMT/capita and VMT/employee can be most easily determined using a travel demand model, either by running the model for each specific project VMT analysis or by creating maps and tables showing average VMT/capita and VMT/employee values for the area of interest. Many types



of transportation analyses in Tulare County should be conducted using the TCAG regional travel demand model and this model can potentially be used for VMT analysis if a model run is conducted for each project. However, TCAG does not provide map or table based VMT/capita and VMT/employee values. Instead VMT analysis can be conducted using the California Statewide Travel Demand Model (CSTDM), developed and maintained by Caltrans. Caltrans has provided base-year (2010) and horizon year (2040) VMT/capita and VMT/employee values for the entire state broken down by county and by geographical units known as traffic analysis zones (TAZ's) within each county.

In its Technical Advisory, OPR refers to the process described earlier for small projects as “map-based screening”. OPR recommends this methodology for determining which projects are located in VMT-efficient areas and can therefore be “screened out” from requiring a VMT analysis. For Tulare County, this process is extended to allow for the map-based analysis of VMT/capita and VMT/employee values.

Thresholds of significance for VMT analysis are also based on OPR's recommendations, but some refinements have been made to reflect the predominantly rural character of Tulare County; following are refinements applicable to Tulare County:

- OPR recommends that residential and office projects compare project VMT/capita or VMT/employee to regional or city-wide average. For Tulare County, due to its predominantly rural character, these comparisons are made between project VMT and the average VMT/capita or between project VMT/employee for the average VMT/employee in the TAZ in which the project is located.
- OPR recommends a significance threshold of 15% below average. For Tulare County, the significance threshold is below the TAZ average. Therefore, projects that have a VMT/capita or VMT/employee equal to or above the average VMT/capita or VMT/employee in the TAZ in which the project is located would be presumed to have a significant transportation impact.
- OPR recommends that local-serving retail projects can be presumed to have a less than significant transportation impact. This is because local-serving retail typically reduces trip lengths by providing additional destinations that tend to replace trips to more distant retail locations. For Tulare County, this concept is also used and it is extended to other types of local-serving projects such as schools, public facilities, parks, and local-serving medical offices.
- OPR recommends that a regional retail project may have a significant impact if results in a net increase in total VMT. This threshold is also used by Tulare County.
- OPR does not recommend a specific threshold for industrial projects. For Tulare County, an industrial project has a significant impact if its VMT/employee equals or exceeds average VMT/employee for the TAZ in which the project is located. It should be noted that goods movement is not subject to VMT analysis. Therefore, goods movement trips associated with an industrial project would not be included when determining VMT/employee.



While many projects will go through the process described above to analyze VMT, some projects will be determined to be “screened out” due to project size or project type. These projects are described in Section 3.2.

Figure 3-1 shows a flow chart that summarizes the VMT analysis process. Tulare County Traffic Zone Analysis Maps are shown in Figure 3-2. These maps provide a general indication of the location of TAZ’s within Tulare County. At the time of preparation of this report, more detailed TAZ maps were available on the website of the Northern California Section of the Institute of Transportation Engineers ([www.norcalite.org](http://www.norcalite.org)). In the future these maps may be available from Tulare County staff or the Caltrans SB 743 website (<https://dot.ca.gov/programs/transportation-planning/office-of-smart-mobility-climate-change/sb-743>). VMT/capita and VMT/employee values for base year conditions based on the CSTDM are shown in Table 3-1.

It should be noted that some projects include a mix of land uses. For these projects, one way to conduct the VMT analysis would be to use the methodology described above and analyze VMT impacts and mitigation for each land use type separately. An alternative approach would be to conduct an analysis determine the VMT reduction that would occur due to internal capture (i.e. trips between different land uses that occur within the project site). The information in Appendix A may be helpful in determining VMT reductions for mixed use projects.

## 3.2 Screening Criteria

Following is a description of projects that would have a less than significant transportation impact due to project size or project type. If a project meets at least one of the following screening criteria, it would not require a detailed VMT analysis.

### 3.2.1 Small Projects

Some projects are small enough that they can be presumed to have a less than significant transportation impact without doing a detailed VMT analysis. For Tulare County, projects that generate less than 500 trips per day can be presumed to have a less than significant impact (see Appendix D for additional information on how this value was determined). Trip generation would normally be determined using the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. Other potential sources include the San Diego Association of Governments (SANDAG) trip generation guide (Not So Brief Guide of Vehicular Traffic Generation Rates in the San Diego Region, April 2002), articles in the ITE Journal, as well as trip generation rates obtained from other accepted sources. In some cases, project applicants may choose to conduct counts of existing similar facilities in order to determine trip generation rates.

### 3.2.2 Local-Serving Retail and Similar Land Uses

Consistent with OPR’s Technical Advisory, local-serving retail uses are presumed to have a less than significant impact on VMT since they tend to attract vehicle trips from adjacent areas that would have otherwise been made to more distant retail locations. This presumption also applies in Tulare County.



Most retail developments in the unincorporated area of Tulare County are anticipated to be local serving. In cases where there is reasonable doubt on whether a project is local serving or regional, County staff can exercise an option of requesting, or requiring, a market study to assist in the evaluation/determination of localness or regionality.

Other developments that are not technically retail may fall under this category such as medical offices, insurance agents, and other offices that are intended to serve the general public. See Appendix E for a list of projects that would fall into this category based on the County's zoning code. Project applicants are encouraged to submit a written analysis to Tulare County for a determination on whether the local serving status applies.

### 3.2.3 Local-Serving Public Facilities

Similar to retail land uses, local-serving public facilities are presumed to have a less than significant impact on VMT. This would include government facilities intended to typically serve the local public, parks, and public elementary schools, public middle schools, and high schools.

### 3.2.4 Affordable and Farmworker Housing Projects

OPR's Technical Advisory allows for a less than significant finding for transportation impacts of residential projects that are 100% affordable housing located in infill areas. For Tulare County, affordable housing is defined as affordable to all persons with a household income equal to or less than 50% of the area median income (as defined by California Health and Safety Code Section 50093), housing for senior citizens, housing for transitional foster youth, disabled veterans, and homeless persons. In addition, this screening category applies to all 100% affordable housing projects that meet the detailed criteria above, regardless of whether they are located in infill areas. It also applies to all developments intended primarily for farm worker housing regardless of their status with respect to affordability.

### 3.2.5 Redevelopment Projects That Result in a Net Reduction of VMT

According to CEQA, projects are considered to have a less than significant impact if they result in a net reduction in the relevant performance measure (in this case VMT). Therefore, redevelopment projects in Tulare County that generate less VMT than the existing project they are replacing would be considered to have a less than significant impact on VMT. For the purposes of VMT analysis, a redevelopment project is any project that replaces an existing development rather than being built on vacant/undeveloped land. Since VMT/capita and VMT/employee are efficiency metrics, a redevelopment project that would produce more VMT than the existing project it is replacing would need to conduct a VMT analysis assuming the proposed land use (with no credit taken for the existing land use) to determine whether the proposed project meets the applicable significance thresholds (i.e. a value below the average VMT/capita or VMT/employee of the TAZ in which the project is located).



### 3.2.6 Mixed-Use Projects That Result in a Net Reduction of VMT

Mixed-use projects typically generate less VMT than the individual component land uses would generate if they were built on separate project sites because mixed-use projects allow some trips to be made by walking or by short vehicle trips which would occur within or very near the project site. Mixed-use projects that wish to demonstrate a net reduction in VMT would need to conduct an internal capture analysis using the methodology described in the current edition Institute of Transportation Engineers Trip Generation Handbook. Once a reduction in VMT is demonstrated through internal capture, the VMT reduction would be used to indicate a reduced level of VMT/capita or VMT/employee for one or more of the individual land uses. After applying this reduction, the individual land use components of the project would be analyzed separately with respect to applicable significance thresholds.

### 3.3 Significance Thresholds

Significance thresholds for land development projects are summarized below. Additional discussion and substantial evidence can be found in Appendix C.

- Residential Projects: A significant transportation impact occurs if the project VMT per capita equals or exceeds the average VMT per capita for the TAZ where the project is located.
- Office Projects: A significant transportation impact occurs if the project VMT per employee equals or exceeds the average VMT per employee for the TAZ where the project is located.
- Regional Retail Projects: A significant transportation impact occurs if the project results in a net increase in VMT.
- Industrial Projects: A significant transportation impact occurs if the project VMT per employee exceeds the average VMT per employee for the TAZ where the project is located.

Appendix B includes information on project types not described above.

### 3.4 Mitigation

The preferred method of VMT mitigation in Tulare County is for project applicants to provide transportation improvements that facilitate travel by walking, bicycling, or transit. This can be accomplished as follows:

- A survey should be conducted within one half mile of the project site to determine any gaps in facilities for walking, bicycling, or transit. For example, this could include repair of damaged or construction of new sidewalks, installation of curb ramps, provision of bicycle facilities, or improvement to transit stops or access to transit routes. For bicycle facilities, the improvement could be a Class I, II, or III bicycle facility consistent with TCAG's Regional Active Transportation Plan or Tulare County Complete Streets plans and programs.
- If suitable improvements are not found within one half mile of the project site, improvements could be suggested in more remote locations as long as they support walking, bicycling, and transit in the unincorporated area of Tulare County.



- The project list in Appendix F, based on the TCAG Regional Active Transportation Plan, can be consulted for potential projects that could be used for VMT mitigation.
- In order to provide VMT mitigation for CEQA purposes, the cost of the mitigation provided should exceed either \$20 per average daily trip generated by the project or 0.5% of the total construction cost of the project (not including land acquisition). The \$20 value per average daily trip is based on a generally typical statewide minimum roadway mitigation value of \$2,000 per single family dwelling unit and an assumption that transit, bicycling, and walking make up approximately 1% of all trips in Tulare County. The value of 0.5% of construction cost is meant to be roughly equivalent to this value but expressed in a different way.
- If a project provides mitigation that meets either or both of the VMT mitigation costs described above, it can presume a 1% reduction in VMT for reporting purposes. The goal of this mitigation is that it will be sufficient to reduce a project's VMT impacts to a level of insignificance.
- In some cases, it may be infeasible for projects to meet the requirements described earlier. In these cases, a project may submit reasonable rationale to the County and request mitigation of VMT impacts on a regional basis. The project applicant would then provide reasonable documentation (i.e., evidence) of how its implementation would provide funding toward unfunded projects. Suitable projects may be found in the TCAG Regional Active Transportation Plan, transit development plans, bicycle and pedestrians plans adopted at the local level, or as part of complete streets projects. Payment could be made through direct or indirect payment of fees or other monetary contributions that would be used to fund relevant improvements. In order for a project to demonstrate a 1% reduction in VMT for reporting purposes, a reasonable argument must be made and submitted by the project applicant to the County for review and subsequent approval.

### 3.5 Step by Step Summary of VMT Analysis for Land Development Projects

Following is a step by step summary of the process for VMT analysis of land development projects. Case studies of example projects are provided in Appendix D.

- Determine whether the project is relieved of the requirements to conduct a VMT analysis using the screening criteria described in Section 3.2.
- If the project is not relieved, determine the TAZ where the project is located based on the maps shown in Figure 3-2 or the more detailed maps available from the ITE or Caltrans sources noted at the end of Section 3.1.
- Determine the average VMT/capita or VMT/employee for the TAZ in which the project is located based on Table 3-1.
- Unless the project has unique characteristics that would result in less VMT generation than a typical project, assume the project VMT/capita or VMT/employee is the same as the average for the TAZ in which the project is located. This would typically result in a significant VMT impact.





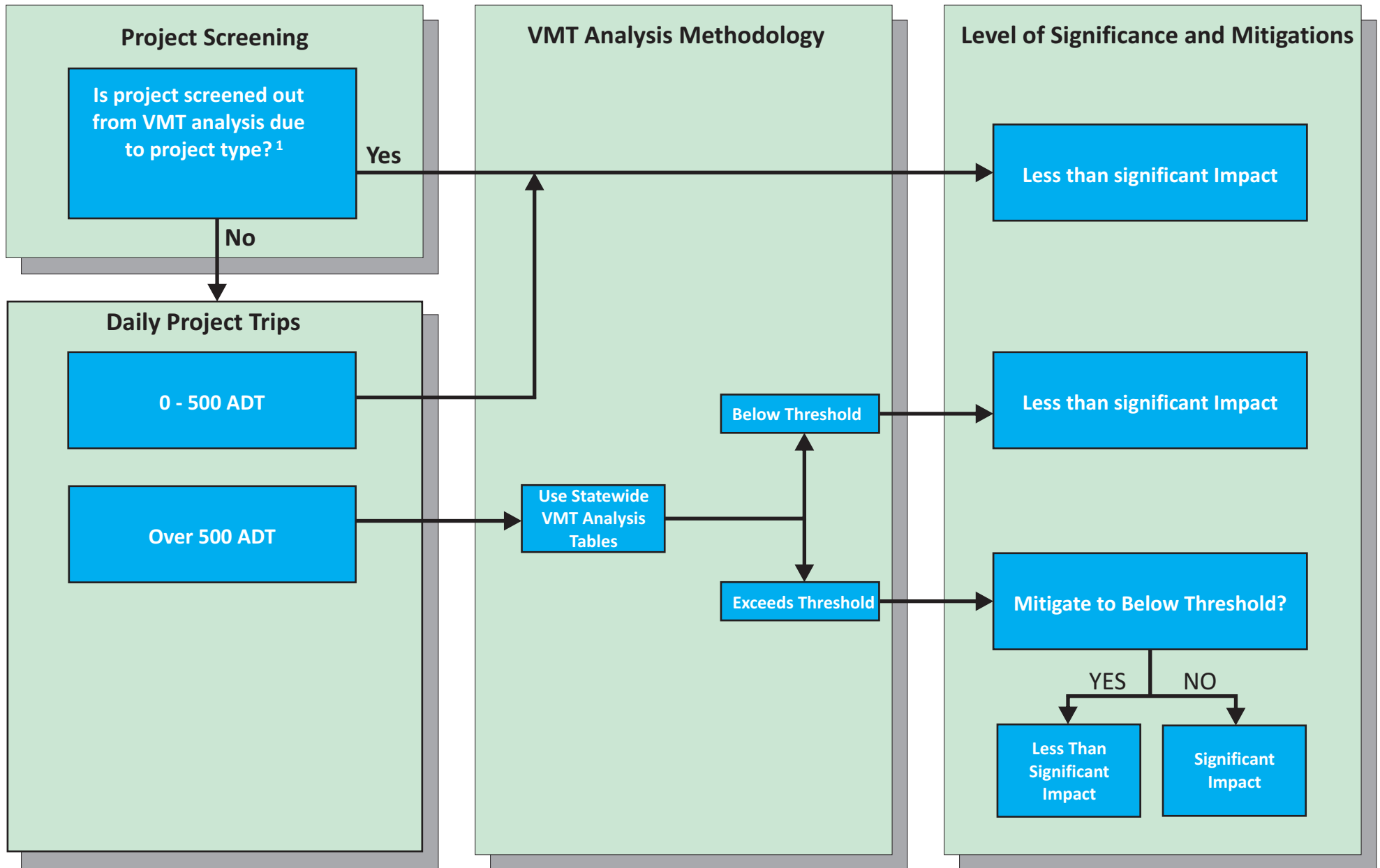
- Provide VMT mitigation as described in Section 3.4.

### 3.6 Additional VMT Methodologies for Unique Situations

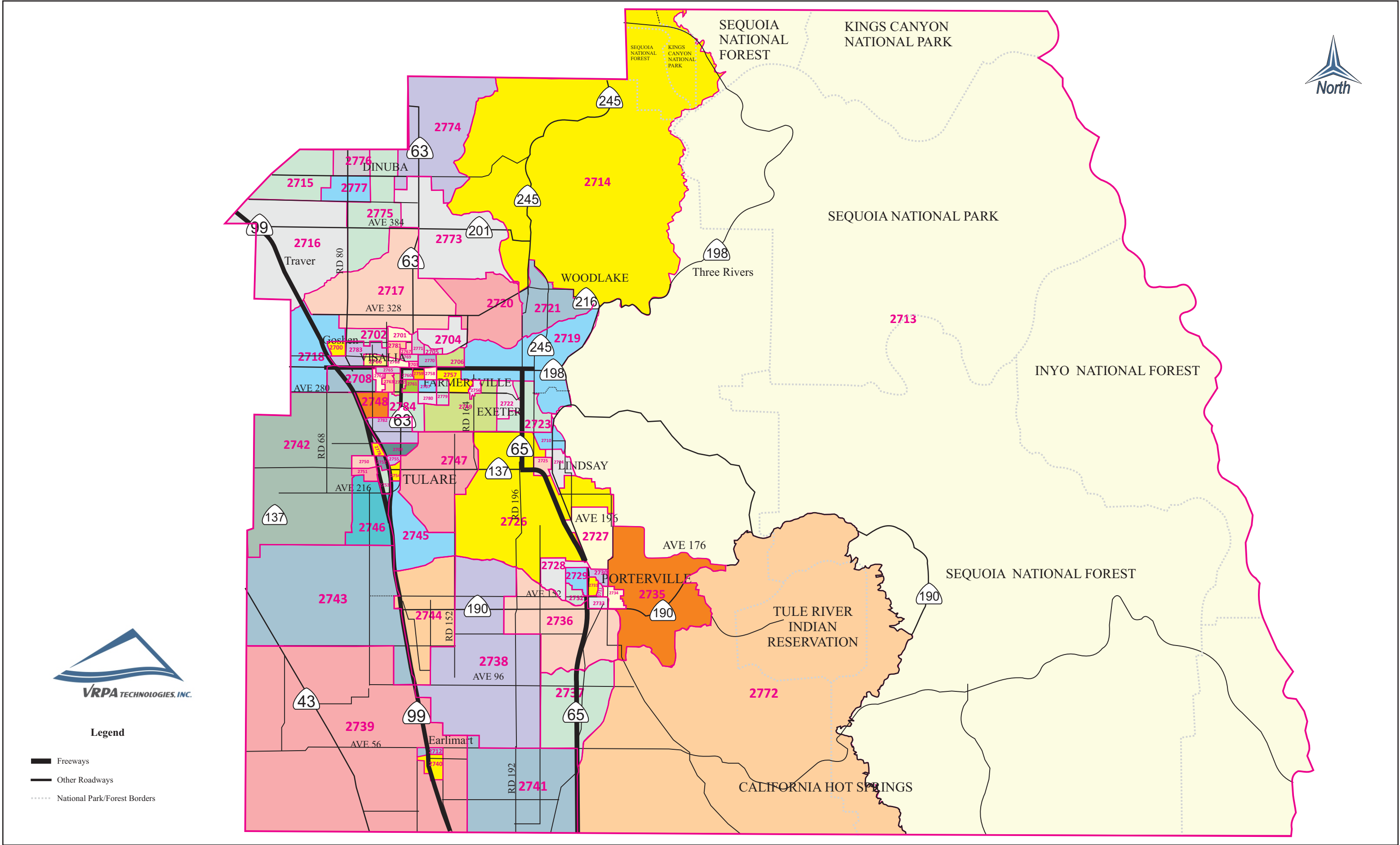
For some projects, it may be acceptable to conduct VMT analysis in an alternative manner than what is described above. This could apply to proposed very large projects that would require a model run rather than the methodology described above. It could also apply to projects that have unique VMT characteristics for which the average VMT/capita or VMT/employee in the TAZ where the project is located would not be applicable.

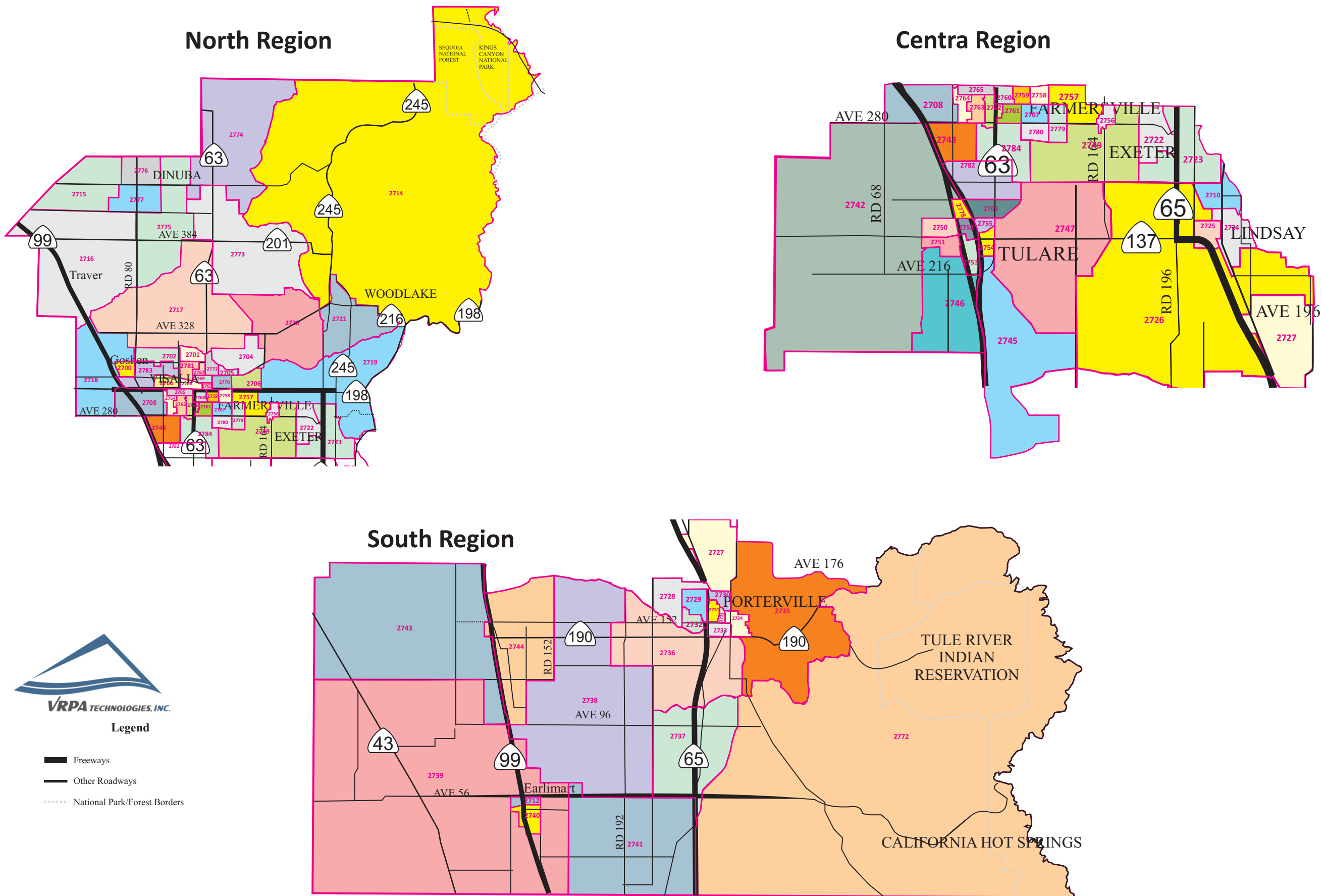


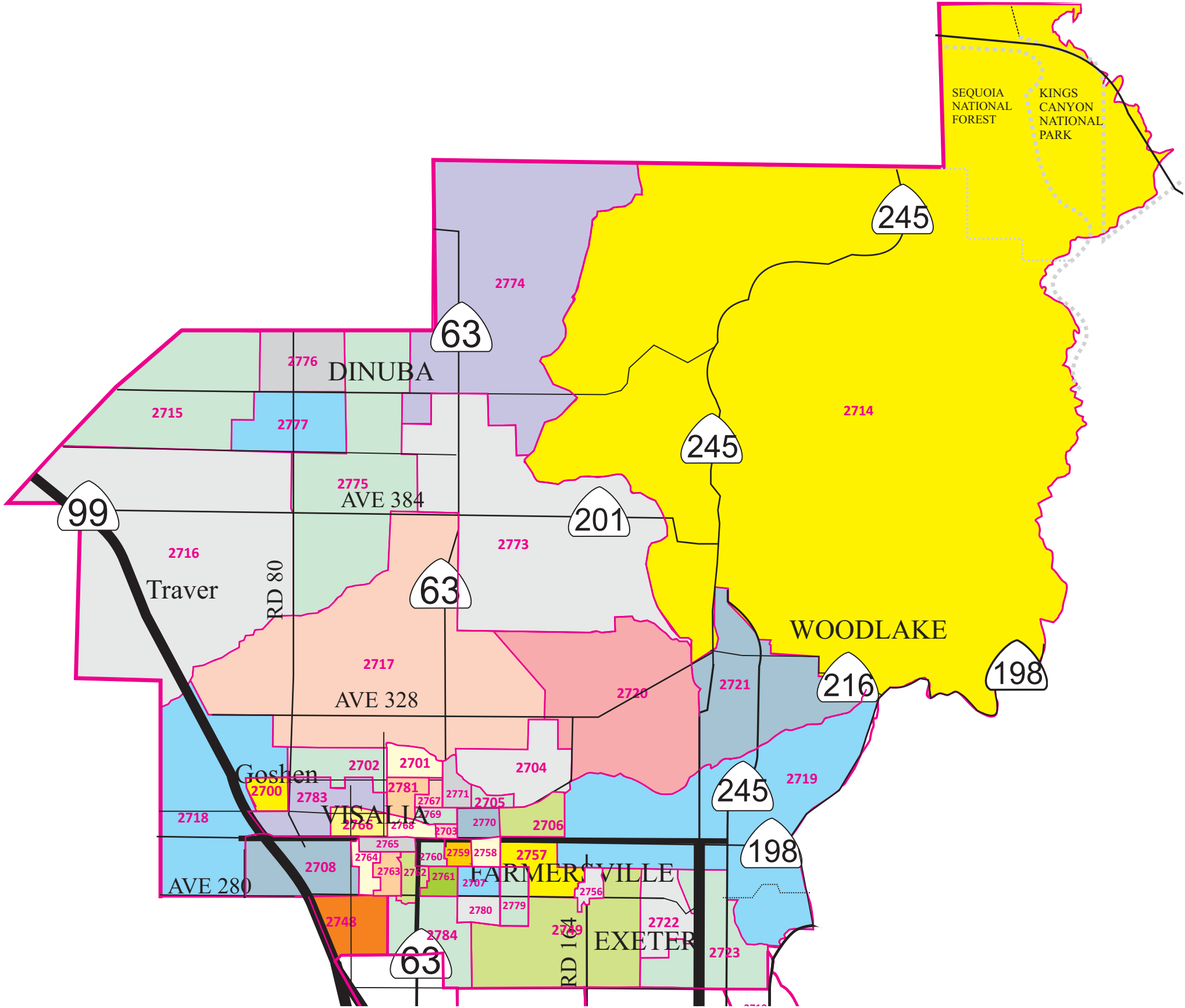
Figure 3-1  
VMT Analysis for Land Development Projects



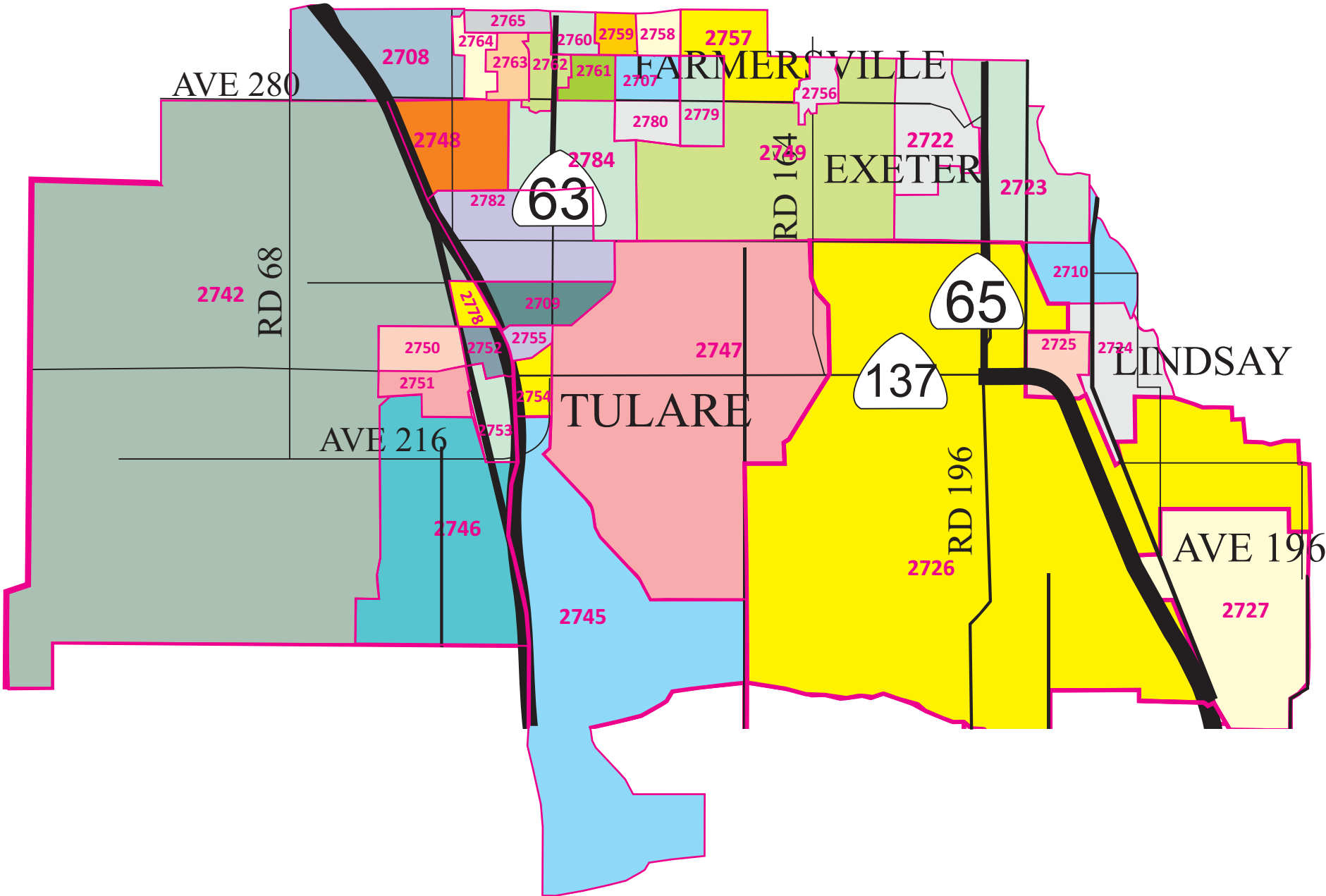
1. VMT impacts presumed to be less than significant for certain projects, including local-serving retail projects, other local-serving projects, and affordable housing projects. See section 3.2







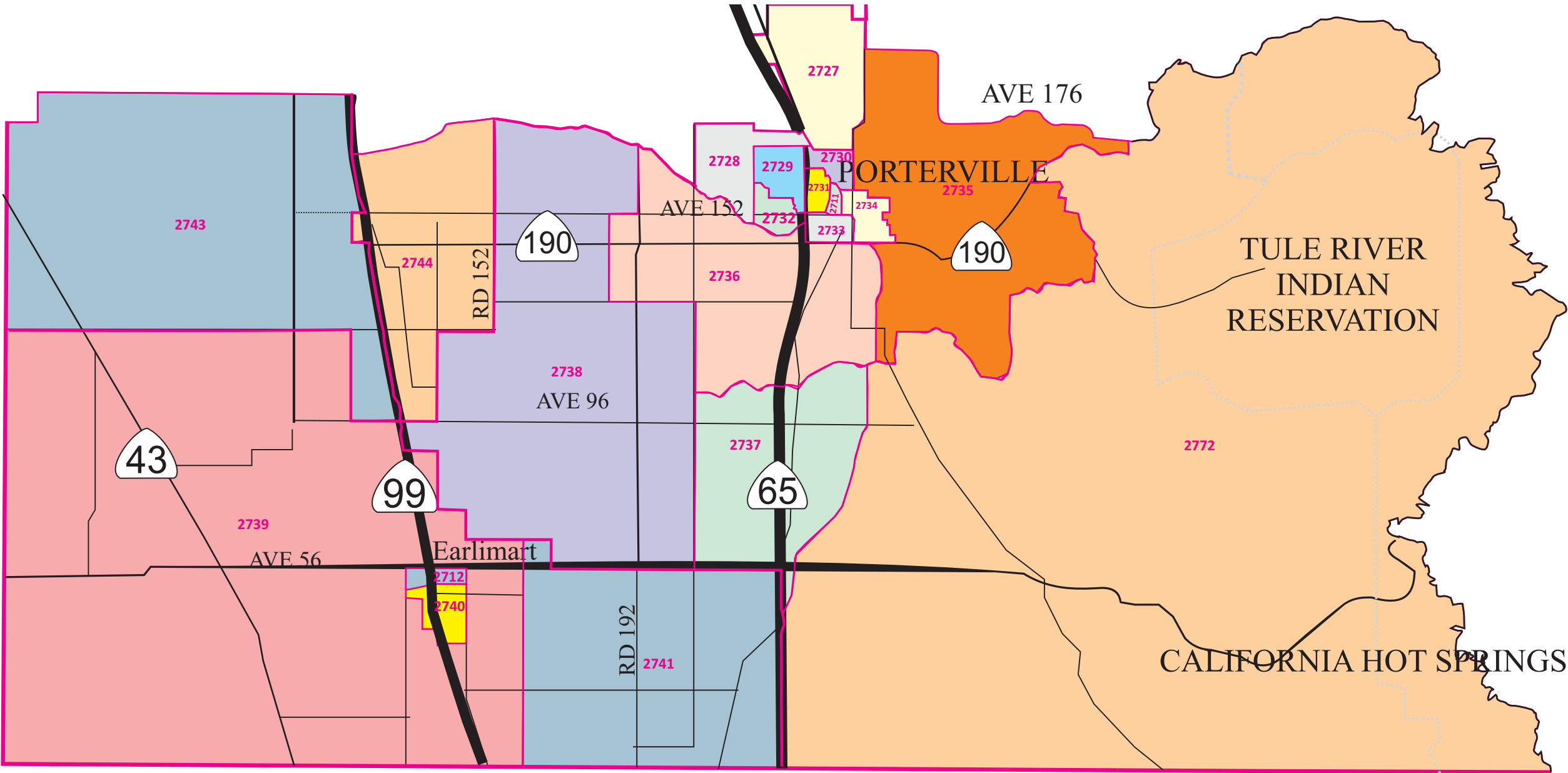
Legend



Legend

- Freeways
- Other Roadways
- National Park/Forest Borders





Legend

- Freeways
- Other Roadways
- National Park/Forest Borders





**Table 3-1**  
**Vehicle Miles Traveled Analysis For**  
**Tulare County Traffic Analysis Zones**

<b>Zone Number</b>	<b>Community or Hamlet</b>	<b>Daily VMT Per Capita</b>	<b>Daily VMT Per Employee</b>
2700	Goshen	14.55	30.92
2701	-	11.15	29.28
2702	-	14.15	26.10
2703	-	6.04	35.06
2704	-	15.71	28.35
2705	-	10.65	29.20
2706	-	10.71	38.62
2707	-	9.86	43.54
2708	-	12.58	30.19
2709	-	12.63	34.53
2710	Tonyville	19.05	56.72
2711	-	6.32	33.21
2712	Earlimart	9.15	31.06
2713	Springville/Three Rivers	42.71	10.59
2714	Three Rivers	31.93	20.35
2715	El Monte Mobile Village	19.09	27.40
2716	Delft Colony/London/ Traver	25.44	29.38
2717	-	12.38	33.38
2718	Goshen/West Goshen	17.04	32.70
2719	Lindcove	21.77	29.63
2720	Ivanhoe	17.19	29.83
2721	-	18.69	27.50
2722	-	13.50	30.85
2723	Tooleville	14.79	31.46
2724	-	11.81	30.44
2725	-	13.31	29.41
2726	-	20.24	34.32
2727	Strathmore	16.10	33.58
2728	-	9.82	32.62
2729	-	8.09	30.10
2730	-	8.01	32.60
2731	-	6.66	30.62
2732	-	8.88	30.30
2733	-	7.21	30.79
2734	-	8.03	29.61
2735	-	11.51	21.49
2736	-	11.44	24.87
2737	Ducor/Terra Bella	19.68	29.09
2738	Pixley	20.12	30.16

**Table 3-1**  
**Vehicle Miles Traveled Analysis For**  
**Tulare County Traffic Analysis Zones**

<b>Zone Number</b>	<b>Community or Hamlet</b>	<b>Daily VMT Per Capita</b>	<b>Daily VMT Per Employee</b>
2739	Allensworth/Alpaugh/ Pixley/Teviston	30.12	29.82
2740	Earlimart	11.64	21.63
2741	Richgrove	18.37	26.05
2742	Waukena	17.78	26.01
2743	Pixley/Tipton	27.56	24.40
2744	Pixley/Tipton	20.76	26.87
2745	-	16.65	32.27
2746	Matheny Tract	12.85	29.18
2747	East Tulare Villa	16.42	28.45
2748	-	12.60	26.38
2749	Hypericum	16.19	33.14
2750	-	9.01	28.45
2751	-	9.33	32.38
2752	-	10.02	30.39
2753	-	9.56	32.21
2754	-	11.09	29.55
2755	-	10.95	27.58
2756	-	11.72	31.01
2757	-	11.27	32.23
2758	-	9.42	30.43
2759	-	8.03	34.14
2760	-	7.61	31.43
2761	-	9.14	35.02
2762	-	7.71	31.64
2763	-	9.38	28.72
2764	-	8.84	30.90
2765	-	7.67	29.21
2766	-	9.38	30.28
2767	-	8.62	27.66
2768	-	7.22	28.65
2769	-	7.06	33.28
2770	-	8.25	30.83
2771	-	8.76	32.23
2772	Springville	31.70	16.76
2773	Cutler-Orosi/Seville	16.75	30.49
2774	Cutler-Orosi/ East Orosi/ Yetttem	17.01	27.17
2775	Monson/Sultana	19.27	25.81

**Table 3-1**  
**Vehicle Miles Traveled Analysis For**  
**Tulare County Traffic Analysis Zones**

<b>Zone Number</b>	<b>Community or Hamlet</b>	<b>Daily VMT Per Capita</b>	<b>Daily VMT Per Employee</b>
2776	-	11.95	24.62
2777	-	10.70	26.16
2778	-	13.40	30.99
2779	-	12.98	26.01
2780	-	9.82	31.55
2781	-	8.35	29.40
2782	-	15.04	25.60
2783	Goshen	10.50	27.12
2784	-	10.31	24.49

## 4 UPDATE OF THE GENERAL PLAN AND COMMUNITY PLANS

This chapter provides guidance on VMT analysis for updates to the General Plan and Community Plans.

### 4.1 VMT Analysis

VMT analysis for the General Plan or Community Plans would generally be conducted by comparing the total VMT/capita of the study area with the plan in the planning horizon year to the VMT/capita of the study area in the base year. This analysis would be conducted using the TCAG regional travel for updates to the General Plan. For updates to community plans, the VMT analysis could be conducted using the TCAG regional travel demand model or using sketch planning techniques. The base year of the analysis would typically be the base year of the model if a travel demand model is used for the calculations or existing conditions if sketch planning techniques are used.

### 4.2 Significance Thresholds

A significant impact would result if the VMT/capita of the study area within the planning horizon year exceeds the VMT/capita of the study area in the base year.

### 4.3 Mitigation

VMT mitigation for the General Plan and Community Plans would typically consist of adding new facilities or improvements to facilitate walking, bicycling, or transit or by reducing the level of roadway improvements included in the applicable plan.



## 5 TRANSPORTATION PROJECTS

SB 743 also applies to transportation projects. Consistent with the adoption language when SB 743 was incorporated into CEQA by the Natural Resources Agency, lead agencies have the discretion to continue using level of service and delay as the performance measure to determine the impacts of transportation projects or to choose a different performance measure. As recommended in OPR's Technical Advisory, Tulare County has determined that it is acceptable to use VMT as the performance measure for transportation projects.

### 5.1 Screening Criteria

Consistent with OPR's Technical Advisory, certain types of transportation projects are presumed to have a less than significant impact on transportation. A list of these project types is shown below. Additional project types that have similar VMT characteristics to the projects described below can also be presumed to have a less than significant impact. A determination of whether a proposed project has similar VMT characteristics to the project types listed below will need to be conducted at the time of analysis.

Certain roadway projects would also have a less than significant impact. This could occur when a new roadway is proposed that would reduce the lengths required between local origins and destinations. For example, a proposed new roadway could reduce VMT if it allowed for less out of direction travel to key destinations than existing available travel routes.

The projects that meet the screening criteria have been categorized into different project types and they include the following:

#### Maintenance

- Rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of or replace existing transportation assets for example, highways; roadways; bridges; culverts; etc.; that are structurally deficient or functionally obsolete (e.g., using Caltrans and/or County of Tulare criteria) to current engineering standards and that do not add additional motor vehicle capacity
- Rehabilitation and maintenance projects that do not add motor vehicle capacity

#### Safety

- Roadside safety devices or hardware installation such as median barriers and guardrails
- Roadway shoulder enhancements to provide "breakdown space," dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes
- Addition of an auxiliary lane of less than one mile in length designed to improve roadway safety
- Grade separation to separate vehicles from rail, transit, pedestrians or bicycles



- Addition of passing lanes, truck climbing lanes, or truck brake-check lanes in rural areas that do not increase overall vehicle capacity along the corridor

#### Operational Improvements

- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, two-way left turn lanes, or emergency breakdown lanes that are not utilized as through lanes
- Addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit
- Conversion of existing general purpose lanes (including ramps) to managed lanes or transit lanes, or changing lane management in a manner that would not increase vehicle travel
- Installation, removal, or reconfiguration of traffic control devices
- Timing of signals to optimize vehicle, bicycle, or pedestrian flow
- Installation of roundabouts or traffic circles
- Installation of publicly available alternative fuel/charging infrastructure

#### Transit

- Addition of a new lane that is permanently restricted to use only by transit vehicles
- Initiation of new transit service

#### Reductions in Roadway Capacity

- Reduction in number of through lanes

#### Pedestrian and Bicycle Facilities

- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way
- Addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve non-motorized travel

## 5.2 Vehicle Miles Traveled Analysis

VMT analysis of roadway projects that do not meet the screening criteria described above is conducted by determining whether the project was included in the General Plan

For projects that do require VMT analysis, the typical approach would be to use the TCAG regional travel demand model and compare a model run without the project to a model run with the project and determine the net change in total VMT. Any net increase in VMT would result in a significant



impact. It may also be possible to use sketch planning techniques to calculate VMT for a small-scale transportation project if the size of the project would so small as to be unreasonable for inclusion in a regional travel model. The methodology would vary depending on the project and would most likely include estimating VMT based on key origins and destinations of travelers using the facility.

### 5.3 Significance Thresholds

Following is the significance threshold for transportation projects:

- Transportation Projects: A significant transportation impact occurs if the proposed project would result in a higher level of VMT than was anticipated for the project in the General Plan Circulation Transportation and Circulation Element or Community Plan or if a capacity increasing project is proposed that was not included in the General Plan Transportation and Circulation Element.

### 5.4 Mitigation

VMT mitigation measures for roadway projects could include the provision of improvements that facilitate walking, bicycling, or transit.





## 6 LOCAL TRANSPORTATION ANALYSIS

Although SB 743 changes the CEQA transportation performance measure from level of service to vehicle miles traveled (VMT), it does not affect a local agency's ability to analyze roadway operations and require land development projects to provide improvements when the traffic generated by a project will affect the local roadway system. In Tulare County, a local transportation analysis (LTA) should be generally be provided for land development projects that generate more than 100 peak hour trips. The purpose of the LTA is to analyze traffic generated by the project and recommend transportation improvements to accommodate increases in traffic. An LTA should generally be provided for transportation projects that add 100 or more trips to other roadways or intersections. While the focus of the analysis will typically be on the roadway system, the LTA should also recommend any improvements needed to facilitate walking, bicycling, and transit in the area of the project site, regardless of whether the project has significant or less than significant impact on VMT. This section describes the recommended methodology for analysis of local roadway conditions.

The purpose of an LTA is to forecast, describe, and analyze how a development will affect existing and future circulation infrastructure for users of the roadway system, including vehicles, bicycles, pedestrians, and transit. The LTA assists transportation engineers and planners in both the development community and public agencies when making land use, mobility infrastructure, and other development decisions. An LTA quantifies the expected changes in transportation conditions and translates these changes into transportation system effects in the vicinity of a project.

The roadway transportation analysis included in an LTA is separate from the transportation impact analysis conducted as part of the environmental (CEQA) project review process described earlier. The purpose of the roadway transportation analysis is to ensure that all project applicants provide reasonable transportation infrastructure improvements in order to accommodate their multimodal transportation demands.

Unique situations may call for variation from these Guidelines. It is recommended that consultants who prepare an LTA conduct early coordination with Tulare County staff. This could include submitting a scoping letter (e.g., a methodology memorandum) for review by Tulare County to verify the application of these Guidelines and to identify any analysis needed to address unique circumstances. Caltrans and lead agencies may need to consult and agree on the specific methods used in local transportation analysis studies involving any State Route facilities

### 6.1 Need for a Study

An LTA is required for all projects which generate traffic greater than 100 peak-hour trips in the AM or PM peak hours.

### 6.2 Study Parameters

It is recommended that the geographic area examined in the LTA include all key intersections, local roadway segments between signalized intersections, intersections, freeway entry and exit ramps, and mainline freeway locations where the proposed project will add 50 or more peak hour trips in either direction to the existing roadway traffic.

The data used in the LTA should not be more than two years old and should not reflect a temporary interruption (special events, construction detour, etc.) in the normal traffic patterns unless that is the



nature of the project itself. If recent traffic data is not available, current counts should be made by the project applicant's consultant.

Tulare County's goal for roadway level of service (LOS) on all freeways, roadway segments, and intersections is LOS D. Roadway capacity analysis shall be conducted for the study area described earlier and improvements shall be considered for locations which are projected to operate worse than level of service D (i.e. level of service E or F). Projects shall provide physical improvements or a fair share payment toward physical improvements when it contributes a 5% or higher increase in traffic to a roadway facility anticipated to operate at level of service E or F.

### 6.3 Scenarios to be Studied

The following scenarios are required to be addressed in the roadway analysis (unless there is concurrence with the lead agency that one or more of these scenarios may be omitted). Situations where a one or more scenarios may be omitted include the following:

- Small projects in areas where roadways are known to be adequate for anticipated future conditions would not require a Horizon Year or Horizon Year + Proposed Project scenario.
- In areas where there are no nearby cumulative developments and substantial increases in near-term traffic are not anticipated would not require a Near-term or Near-term + Proposed Project scenario.

Existing Conditions: Document existing traffic levels and peak-hour levels of service in the study area. Identify locations where roadways do not meet target levels of service for existing conditions.

Existing Plus Project Conditions: Analyze the effect of the proposed project in addition to existing conditions. This scenario identifies the effect of a project on the transportation network with no other changes in conditions.

Near-term (approved and pending): Analyze the cumulative conditions resulting from the development of "other" approved and "reasonably foreseeable" pending projects that are anticipated to influence the study area. This is the baseline against which project effects are assessed. Tulare County (or adjacent jurisdictions) can provide copies of the traffic studies of previously-approved projects. If data is not available for near-term cumulative projects, a percentage per year growth factor should be used. If applicable, transportation network improvements should also be included in this scenario. This would include programmed and fully funded network improvements that are scheduled to open prior to the project's anticipated opening day.

Near-term + Proposed Project: Analyze the effects of the proposed project at its anticipated opening day in addition to near-term baseline conditions.

Horizon Year: Identify traffic forecasts, typically approximately 20 years into the future, through the output of a TCAG model forecast or other traffic forecast methodology approved by the County of Tulare.

Horizon Year + Proposed Project: Analyze the additional project traffic effect to the horizon year condition. When reasonable, and particularly in the case of very large developments or new general/community plans, the TCAG model should be run with, and without, the additional development to show the net effect on all parts of the area's transportation system.



## 6.4 Project Trip Generation and Distribution

Project trip generation would normally be determined using the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual. Other potential sources include the San Diego Association of Governments (SANDAG) trip generation guide (Not So Brief Guide of Vehicular Traffic Generation Rates in the San Diego Region, April 2002), articles in the ITE Journal, as well as trip generation rates obtained from other accepted sources. In some cases projects may choose to conduct counts of existing similar facilities in order to determine trip generation rates.

Reasonable reductions to trip rates should also be considered with proper analysis of pass-by and diverted traffic on adjacent roadways and for mixed-use developments.

Project trips shall be assigned and distributed either based on estimated trip distribution patterns or through use of the TCAG model. The magnitude of the proposed project will usually determine which method is employed.

For projects using the manual method the trip distribution percentages shall be derived from existing local traffic patterns using professional judgement. For projects using the computer model, the trip distribution percentages shall be derived from a select zone assignment. The centroid connectors should accurately represent project access to the street network.

## 6.5 Analysis of Project Effect on the Roadway System

The LTA shall include a roadway analysis to determine the effect that the project will have for each of the previously outlined study scenarios. This will include daily or peak-hour capacity analyses for freeways and roadway segments. Intersections and freeway ramp merge/diverge areas shall be conducted based on AM and PM peak hour conditions. The capacity analysis shall be conducted for all of the traffic analysis scenarios described earlier. The analysis will typically be conducted using the most recent edition of the Highway Capacity Manual for intersections and freeway ramp merge/diverge areas.

## 6.6 Need for Roadway Improvements

Roadway improvements or a fair share contribution for roadway improvements shall be recommended for any roadway facilities that are anticipated to operate worse than the target of level of service D. Following is specific guidance for individual situations:

- For unsignalized intersections that are anticipated to operate at LOS E or F, a signal warrant analysis shall be conducted using peak hour warrants. If this analysis indicates that a traffic signal is not warranted, alternative improvements to achieve LOS D or better should be recommended, if feasible. If no feasible improvements to achieve LOS or better are available, the intersection can be determined to operate at LOS D and no improvements would be needed.
- For roadway segments that are anticipated to operate at LOS E or F using roadway segment analysis, consideration shall be given to the operation of the traffic signals at either end of the segment (if applicable). If the adjacent traffic signals are anticipated to operate at LOS D or better, the roadway segment shall not need improvements.



- For all facilities, roadway improvements will not be needed if the project traffic is less than 5% of total traffic with the project.
- In cases where a fair share payment is recommended it shall be based on the project's share of total future traffic with the project. The fair share shall be determined based on the project's anticipated traffic increase divided by the total of anticipated traffic increases from the project and all other traffic increases.

## 6.7 Effect of Trucks on Pavements

For projects with large concentrations of truck traffic, the LTA shall include an analysis of the effect of truck traffic on the pavement condition of affected roadways. Such projects would include industrial developments of all types, sand and gravel mining, landfills, and batch processing plants. The pavement analysis shall be conducted for the same study area as the remainder of the LTA. Improvements shall be recommended whenever the project would have a substantial effect on the roadway pavement and the intent of the improvement would be to restore the pavement to the pre-project condition or better.



## 7 ADDITIONAL RESOURCES FOR VEHICLE MILES TRAVELED ANALYSIS

This chapter provides locations of websites that can be used to locate additional resources that may be useful in conducting VMT analyses in Tulare County and a list of reference documents.

### 7.1 Websites with Additional Resources

- Detailed TAZ Maps for the California Statewide Model: [www.norcalite.org](http://www.norcalite.org)
- Governor’s Office of Planning and Research (ORP): <http://www.opr.ca.gov/ceqa/updates/sb-743/>
- California Air Pollution Control Officers Association (CAPCOA). This organization has provided one of the most widely used resources for VMT mitigation (Quantifying Greenhouse Gas Mitigation Measures, August 2010). It can be found at the following website: <http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>
- SANDAG Mobility Management Project and VMT Reduction Tool: <https://www.icommutesd.com/planners/tdm-local-governments>
- Caltrans SB 743 Website: <https://dot.ca.gov/programs/transportation-planning/office-of-smart-mobility-climate-change/sb-743>

### 7.2 References

Technical Advisory on Evaluating Transportation Impacts in CEQA, Governor’s Office of Planning and Research, December 2018: [http://opr.ca.gov/docs/20190122-743\\_Technical\\_Advisory.pdf](http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf)

Climate Action Plan, Tulare County, December 2018 Update: <http://generalplan.co.tulare.ca.us/> then click on “Climate Action Plan 2018 Update”

Tulare County General Plan, 2030 Update, August 2012: <http://generalplan.co.tulare.ca.us/>

Trip Generation, Institute of Transportation Engineers, 10<sup>th</sup> Edition: <https://itetripngen.org/index.html>

(Not So) Brief Guide of Vehicular Trip Generation for the San Diego Region, San Diego Association of Governments, April 2002:

[https://www.sandag.org/uploads/publicationid/publicationid\\_1140\\_5044.pdf](https://www.sandag.org/uploads/publicationid/publicationid_1140_5044.pdf)

Trip Generation Handbook, Institute of Transportation Engineers, 3<sup>rd</sup> Edition, September 2017:

<https://ecommerce.ite.org/IMIS/ItemDetail?iProductCode=RP-028D-E>

Regional Active Transportation Plan (with amendments): <https://tularecog.org/tcag/programs-funding/active-transportation-program-atp/regional-active-transportation-plan/tcag-regional-active-transportation-plan-walk-and-bike-tulare-county-with-amendments/>

California Health and Safety Code:

<https://leginfo.legislature.ca.gov/faces/codesTOCSelected.xhtml?tocCode=HSC>



California Public Resources Code. Section 21000 et seq. Title 14. Division 6. California Natural Resources Agency. Chapter 3. Section 15064.3, subdivision (a). Accessed May 2020 at:  
[https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2018\\_CEQA\\_FINAL\\_TEXT\\_122818.pdf](https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf).



**APPENDIX A**  
**ALTERNATIVE**  
**VEHICLE MILES**  
**TRAVELED**  
**ANALYSIS FOR**  
**NON-STANDARD**  
**LAND USE TYPES**





TABLE A-1: VMT ANALYSIS OF NON-STANDARD LAND USE TYPES

LAND USE TYPE	BASIS FOR DETERMINATION OF A SIGNIFICANT VEHICLE MILES TRAVELED (VMT) IMPACT
Religious	See local-serving retail
Education	See local-serving retail
Hotel	See office
Medical Office or Hospital	See local-serving retail
Library	See local-serving retail

# **APPENDIX B**

# **SCREENING**

# **CRITERIA AND**

# **THRESHOLD**

# **EVIDENCE**

## SCREENING CRITERIA AND THRESHOLD EVIDENCE

This appendix provides context and evidence for the screening criteria and threshold evidence included in Chapters 3 for Land Development Projects, Chapter 4 for Update of the General Plan and Community plans, and Chapter 5 for Transportation Projects.

### Screening Criteria

Certain types of development projects are presumed to have less than significant impacts to the transportation system, and therefore would not be required to conduct a VMT analysis if any of the following criteria (that is, small projects, local-serving retail and similar uses, local-serving public facilities, affordable housing, and redevelopment projects that results in less VMT) are established, based on substantial evidence.

#### Small Projects

Small projects, which are whole projects with independent utility that would generate less than 500 average daily vehicle trips (ADT), would also not result in significant transportation impacts on the transportation system:

**Evidence** – Traffic impact analysis conducted using level of service and delay as a performance measure has traditionally used minimum values for projects that are considered large enough that an analysis is required to determine whether the project has CEQA transportation impacts. In many agencies, these minimum project sizes are documented in an agency’s traffic impact study guidelines. Although some agencies are carrying the small project size threshold forward from level of service and delay-based analyses to VMT analyses, Tulare County does not have published traffic impact study guidelines. In order to establish a minimum project size for which a project is required to conduct a VMT analysis, current minimum project sizes for VMT analysis were gathered from statewide sources as shown in Table B-1. Of the agencies listed in the table, The Sacramento region and the San Diego region stand out as jurisdictions that include rural areas such as Tulare County. The Sacramento region uses VMT specific to the region and this is considered less applicable to Tulare County than the San Diego minimum project size which is based on previous experience in conducting transportation analyses for CEQA. Of the two values listed for the San Diego region, the value of 500 ADT (i.e. 500 daily trips) for projects inconsistent with the General Plan is considered to be more applicable to Tulare County. This is because the value of 1,000 ADT for projects consistent with the General Plan is based on individual projects in the San Diego region comparing level of service and delay-based analyses with a General Plan specific to their location. However, the value of 500 ADT for projects inconsistent with the General Plan fits the situation of VMT analyses conducted in Tulare County since no previous VMT analysis will have been conducted on a project basis. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 500 or fewer daily trips could be considered not to lead to a significant impact. It should be noted that consistency with the General Plan for the purpose of this discussion means that the proposed project would be anticipated to generate equal to or fewer trips than the land use designated in the General Plan.

#### Local-Serving Retail and Similar Uses

Local-serving retail is defined in Tulare County as any retail development, regardless of size, that is anticipated to serve local customers. These types of developments would reduce trip lengths (and therefore VMT) by offering

Table B-1  
Sample Minimum Project Size Requirements for SB 743 Analysis

Agency	Minimum Project Size	Basis for Determination
City of San Jose	Based on OPR Technical Advisory but stated in terms of sq. ft.	OPR Technical Advisory
City of Elk Grove	10 d.u. or 50,000 sq.ft. commercial	N/A
Sacramento Area Council of Governments	237 ADT	Statistical analysis of regional VMT data
City of Los Angeles	250 ADT	N/A
City of Pasadena	10 d.u./10,000 sq.ft. commercial/300 ADT	N/A
City of San Diego	Based on OPR guidelines but using local trip generation. Result is 300 ADT.	Based on OPR guidelines but using local trip generation. Result is 300 ADT.
City of Fresno	500 ADT	Comparison to greenhouse gas emissions thresholds
San Diego Region	500 ADT (for projects inconsistent with the General Plan)	Previous Traffic Impact Study Guidelines
San Diego Region	1,000 ADT (for projects consistent with the General Plan)	Previous Traffic Impact Study Guidelines

additional retail choices allowing customers to make shorter trips than they would make to more distant retail developments. This would apply to retail developments intended to serve customers in the immediate area (such as a convenience store located in a rural area). It would also apply to retail developments that would serve customers in located anywhere in the unincorporated area or Tulare County, as long as the project would reduce the need for travel to more remote retail developments in adjacent counties.

**Evidence** – The OPR Technical Advisory provides that “because new retail development typically redistributes shopping trips rather than creating new trips, estimating the total change in VMT (i.e., the difference in total VMT in the area affected with and without the project) is the best way to analyze a retail project’s transportation impacts.” Local serving retail generally shortens trips as longer trips from regional retail are redistributed to new local retail.

### Local-Serving Public Facilities

Similar to local-serving retail, local-serving public facilities such as schools, government offices, medical offices, and parks serve the community and either produce very low VMT or divert existing trips from established local facilities.

**Evidence** – Similar to local serving retail, local serving public facilities would redistribute trips and would not create new trips. Thus, similar to local serving retail, trips are generally shortened as longer trips from a regional facility are redistributed to the local serving public facility. The evidence from the OPR Technical Advisory described above also applies to local-serving public facilities.

### Affordable Housing Projects

Residents of affordable residential projects typically generate less VMT than residents in market rate residential projects. In recognition of this effect, and in accordance with the OPR Technical Advisory, deed-restricted affordable housing projects meet the region’s screening criteria and would not require a VMT analysis.

Projects that provide affordable housing affordable to persons with a household income equal to or less than 50 percent of the area median income as defined by California Health and Safety Code Section 50093, housing for senior citizens (as defined in Section 143.0720(e)), housing for transitional foster youth, disabled veterans, or homeless persons (as defined in 143.0720(f)) are not required to complete a VMT analysis.

**Evidence** –Affordable residential projects generate fewer trips than market rate residential projects. This supports the assumption that the rate of vehicle ownership is anticipated to be less for persons that qualify for affordable housing. Additionally, senior citizens, transitional foster youth, disabled veterans, and homeless individuals also have low vehicle ownership rates.

### Redevelopment Projects That Result in a Net Reduction in VMT

A redevelopment project that demonstrates that the total project VMT is less than the existing land use’s total VMT is not required to complete a VMT analysis. For the purposes of VMT analysis, a redevelopment project is defined as a land development project that is proposed for a project site that already is developed as opposed to a project that is proposed to be built on a project site that is vacant.

**Evidence** – Consistent with the OPR Technical Advisory, “[w]here a project replaces existing VMT-generating land uses, if the replacement leads to a net overall decrease in VMT, the project would lead to a less-than-significant transportation impact. If the project leads to a net overall increase in VMT, then the thresholds described above should apply.”

## Thresholds

If a project is required to complete a VMT analysis, the project’s impacts to the transportation system would be significant if the VMT would exceed the average VMT/capita or VMT/employee of the traffic analysis zone (TAZ) in which the project is located.

### Residential Projects

**Threshold** – below average household VMT/capita in the TAZ where the project is located.

**Evidence** – The OPR Technical Advisory recommends the use of VMT/capita as the performance measure for VMT analysis of residential projects. It provides specific recommendations for numerical thresholds to be used on a statewide basis, but also includes the following statement: “In rural areas of non-MPO counties (i.e., areas not near established or incorporated cities or towns), fewer options may be available for reducing VMT, and significance thresholds may be best determined on a case-by-case basis. Note, however, that clustered small towns and small town main streets may have substantial VMT benefits compared to isolated rural development, similar to the transit oriented development described above.” Although Tulare County is an MPO county, these guidelines recommend the use of significance thresholds developed for the local characteristics of small town and rural areas of Tulare County. These guidelines extend the concept of rural guidelines in non-MPO counties developed on a case by case basis to the unincorporated area of Tulare County that may not be considered rural by other definitions. For the purpose of VMT analysis, the same characteristics of rural areas of non-MPO counties mentioned by OPR apply to all of Tulare County. These include lack of a high concentration of transit, pedestrian, and bicycle facilities and a high degree of reliance on the automobile mode for basic transportation. However, these guidelines acknowledge the VMT benefits of providing transit, bicycle, and pedestrian improvements in small towns and small town main streets by encouraging the use of these types of improvements as mitigation measures.

### Office/Employment Projects

**Threshold** – below average VMT/employee in the TAZ where the project is located.

**Evidence** – See evidence provided above for residential projects.

## Transportation Project Screening Criteria

This section provides a list of transportation projects that are presumed to have a less than significant impact; and therefore, would not be require a VMT analysis. In addition, information is provided on significance thresholds for projects that would require a VMT analysis.

Consistent with OPR’s Technical Advisory, project types that would not result in increased vehicle travel have, by the very nature of the project, a less than significant impact and can be screened out from conducting a VMT analysis. These types of projects include, but are not limited to:

- Rehabilitation/maintenance projects intended to maintain transportation facilities that do not add motor vehicle capacity or an increase of VMT
- Addition of bicycle facilities (i.e., Class I, II, or III facilities and bicycle parking).
- Intersection traffic signal improvements/turn-lane configuration changes
- Additional capacity on local/collector streets if conditions are substantially improved for active transportation modes
- Installation of roundabouts and other traffic calming devices

The following specific project types are presumed to have a less than significant impact to VMT:

- Rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of or replace existing transportation assets for example highways; roadways; bridges; culverts; etc.; that are structurally deficient or functionally obsolete (e.g., using Caltrans and/or County of Tulare criteria) to current engineering standards and that do not add additional motor vehicle capacity
- Roadside safety devices or hardware installation such as median barriers and guardrails
- Roadway shoulder enhancements to provide “breakdown space,” dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes
- Addition of an auxiliary lane of less than one mile in length designed to improve roadway safety
- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, two-way left turn lanes, or emergency breakdown lanes that are not utilized as through lanes
- Addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit
- Conversion of existing general purpose lanes (including ramps) to managed lanes or transit lanes, or changing lane management in a manner that would not increase vehicle travel
- Addition of a new lane that is permanently restricted to use only by transit vehicles
- Reduction in number of through lanes
- Timing of signals to optimize vehicle, bicycle, or pedestrian flow
- Installation of roundabouts or traffic circles
- Initiation of new transit service

- Rehabilitation and maintenance projects that do not add motor vehicle capacity
- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way
- Installation of publicly available alternative fuel/charging infrastructure
- Addition of passing lanes, truck climbing lanes, or truck brake-check lanes in rural areas that do not increase overall vehicle capacity along the corridor

**Evidence** – The list above is consistent with recommendations in the OPR Technical Advisory that indicates projects that can be presumed to have a less than significant impact on VMT due to overall project characteristics.

### Threshold

For transportation projects, significant impact occurs if the project results in a net increase in VMT as compared with the level of VMT anticipated to occur through implementation of the Transportation and Circulation Element of the General Plan or Community Plan. In practice, this means that projects included in the Transportation and Circulation Element would have a less than significant VMT impact and VMT-increasing projects that are not included in the Transportation and Circulation Element would have a significant impact. Projects that replace a project in the Transportation and Circulation Element would have a significant impact if they would be anticipated to generate more VMT than the project they are replacing.

**Evidence** – OPR's Technical Advisory does not have a recommended threshold for transportation projects and leaves this determination up to lead agencies. It is more applicable and appropriate that a VMT analysis for roadway projects is considered at a planning level when developing regional or agency-specific transportation plans. The transportation plan for the region or agency is developed in consideration of the need to reduce vehicle miles traveled and the plan provides a coordinated effort to achieve this goal. Projects approved at the planning level support regional or agency-specific goals with respect to VMT. In Tulare County, the relevant transportation plans are the Regional Transportation Plan/Sustainable Communities Strategies prepared by the Tulare County Association of Governments and the Transportation and Circulation Element of the General Plan prepared by Tulare County.



# **APPENDIX C**

# **POTENTIAL PROJECTS FOR USE IN VMT MITIGATION**

Table C-1  
Tulare County - Bicycle & Pedestrian Projects

TAZ	Agency - Project Description	Project Type	Cost (\$1,000s)	Source Document
All	Tulare County Active Transportation Campaign	Other/Safe Route to School (SRTS)	\$ 263	ATP
2776	Dinuba Elementary School Multi-Use Path	Trail-Path	\$ 550	ATP
2776/77	Dinuba Safe Route to School	Sidewalk/ Crossing/SRTS	\$ 530	ATP
2777	Dinuba Downtown Sidewalk Improvements	Sidewalk	\$ 334	ATP
2777	Dinuba Ventura Street Ped Path & Rail Crossing	Trail-Path/Crossing	\$ 500	ATP
2777	Dinuba Kamm/Greene Intersection Improvements	Crossing/SRTS	\$ 250	ATP
2776/77	Dinuba Citywide Bikeway	Bike	\$ 572	ATP
2776/77	Dinuba USD Safe Route To School	Other/SRTS	\$ 1,504	ATP
2722/23	Exeter Safe Route To School	Sidewalk/SRTS	\$ 998	ATP
2723	Exeter Rocky Hill Dr Ped & Bike Improvements	Sidewalk/Bike/ SRTS	\$ 1,000	ATP
2722	Exeter Road Path, Phase II	Trail-Path	\$ 1,750	ATP
2722/23	Exeter Citywide Bike Network	Bike	\$ 325	ATP
2756	Farmersville East Walnut Ave Sidewalks and Bike Lanes	Sidewalk/Bike/ SRTS	\$ 2,858	ATP
2719/2749/ 2756/2757	Farmersville Citywide Bikeway Network	Bike/Trail-Path	\$ 1,513	ATP
2724	Lindsay Page-Moore Tract Sidewalk Improvements City Project	Sidewalk	\$ 600	ATP
2724	Lindsay Page-Moore Tract Sidewalk Improvements Lindsay USD Project	Sidewalk	\$ 830	ATP
2724/25/26	Lindsay Citywide Bikeway Network	Bike	\$ 236	ATP
2711/2729/ 2731/2732/ 2734	Porterville Morton Ave Crosswalk Warning Lights	Crossing/SRTS	\$ 242	ATP
2732	Porterville Orange Ave Crosswalk Warning Lights	Crossing/SRTS	\$ 301	ATP
2711/2732/ 2733	Porterville Main Street Crosswalk Warning Lights	Crossing/SRTS	\$ 360	ATP
2732/33	Porterville Tule River Parkway Multi-Use Trail	Trail-Path	\$ 6,362	ATP
All Porterville City TAZ's	Porterville Citywide Bikeway Network	Bike/Trail-Path	\$ 1,677	ATP
2739	Tulare County, Allensworth Sidewalk Improvements	Sidewalk/SRTS	\$ 290	ATP
2739	Tulare County, Alppaugh Sidewalk Improvements	Sidewalk/SRTS	\$ 870	ATP
2773	Tulare County, Cutler-Ave 408 Improvements	Sidewalk	\$ 440	ATP
2773	Tulare County, Cutler-George Rd/2nd Dr Improvements	Sidewalk	\$ 3,000	ATP
2737	Tulare County, Ducor-Avenue 56/Carlisle Road Improvements	Sidewalk/SRTS	\$ 1,660	ATP

Table C-1  
Tulare County - Bicycle & Pedestrian Projects

TAZ	Agency - Project Description	Project Type	Cost (\$1,000s)	Source Document
2712/2740	Tulare County, Earlimart-State Street Sidewalk Improvements Phase I	Sidewalk/SRTS	\$ 1,460	ATP
2712/2740	Tulare County, Earlimart-State Street Sidewalk Improvements Phase II	Sidewalk/SRTS	\$ 2,100	ATP
2712/2740	Tulare County, Earlimart-State Street Sidewalk Improvements Phase III	Sidewalk/SRTS	\$ 2,270	ATP
2712	Tulare County, Earlimart Middle School Crossing Improvements	Crossing/SRTS	\$ 63	ATP
2740	Tulare County, Earlimart - Washington Avenue Sidewalk Improvements	Sidewalk/SRTS	\$ 490	ATP
2740	Tulare County, Earlimart Elementary School Crossing Improvements	Crossing/SRTS	\$ 80	ATP
2712	Tulare County, Earlimart-Alila School Crossing Improvements	Crossing/SRTS	\$ 70	ATP
2700/2718	Tulare County, Goshen - Avenue 308 Improvements	Sidewalk/Bike	\$ 920	ATP
2700/2718/ 2783	Tulare County, Goshen - Goshen Avenue Improvements	Sidewalk/Bike	\$ 4,670	ATP
2720	Tulare County, Ivanhoe - Avenue 3w32/Road 159 Improvements	Sidewalk	\$ 847	ATP
2720	Tulare County, Ivanhoe - Road 160 Improvements	Sidewalk/SRTS	\$ 735	ATP
2746	Tulare County, Matheny Tract Roadway Improvements	Sidewalk	\$ 4,850	ATP
2773	Tulare County, Orosi - Avenue 416 Improvements	Sidewalk	\$ 1,910	ATP
2773	Tulare County, Orosi - Avenue 413 Improvements	Sidewalk/SRTS	\$ 630	ATP
2773	Tulare County, Seville - Road 156 Improvements	Sidewalk/SRTS	\$ 223	ATP
2727	Tulare County, Strathmore- Avenue 198 Improvements	Sidewalk/SRTS	\$ 230	ATP
2727	Tulare County, Strathmore- Avenue 198 Improvements	Sidewalk	\$ 1,300	ATP
2744	Tulare County, Tipton - Evans Road Sidewalk Improvements	Sidewalk/SRTS	\$ 3,900	ATP
2716	Tulare County, Traver - 6th Street Sidewalk Improvements	Sidewalk	\$ 1,170	ATP
2716	Tulare County, Traver - Merritt Drive Sidewalk Improvements	Sidewalk/Bike/ SRTS	\$ 1,300	ATP
2742	Tulare County, Waukena Elementary School Improvements	Sidewalk/SRTS	\$ 210	ATP
All	Tulare County, Countywide Bikeway Network	Bike/Trail-Path	\$12,630	ATP
2700/2783/ 2718	Tulare County, Goshen Area Bike/Ped Improvements	Bike/Trail-Path/ SRTS	\$ 250	ATP
2747/2755	City of Tulare, Santa Fe Trail Crossing @ Mooney Blvd	Crossing	\$ 574	ATP

Table C-1  
Tulare County - Bicycle & Pedestrian Projects

TAZ	Agency - Project Description	Project Type	Cost (\$1,000s)	Source Document
2751/52	City of Tulare, Santa Fe Trail Crossing @ E, M, and Blackstone Streets	Crossing	\$ 255	ATP
All Tulare City TAZ's	City of Tulare, Tulare Citywide Bikeway Improvements	Bike/Trail-Path	N/A	ATP
2772	Tule River Indian Reservation, North Reservation Road Improvements	Sidewalk	\$ 2,399	ATP
2718	City of Visalia, Westerly Extension of Goshen Avenue Trail	Trail-Path	\$ 2,000	ATP
2760	City of Visalia, Evans Ditch Trail @ Rotary Park	Trail-Path/SRTS	\$ 635	ATP
2701/02	City of Visalia, Santa Fe Trail Crossing @ Rigger Avenue	Crossing	\$ 350	ATP
2770	City of Visalia, Mill Creek Trail From Burke Street to Ben Maddox Way	Trail-Path	N/A	ATP
TBD	City of Visalia, Greenway Trail From SCE Rector Station to St. John's River Trail	Trail-Path	\$ 3,500	ATP
2757	City of Visalia, Packwood Creek Trail North of Tulare Avenue	Trail-Path	\$ 500	ATP
2757	City of Visalia, Packwood Creek Trail Bridge North of Tulare Avenue	Crossing	\$ 275	ATP
2757/58	City of Visalia, Packwood Creek Trail Crossing @ Lovers Lane	Crossing	\$ 350	ATP
2707/2758/2759	City of Visalia, Walnut Avenue Trail Crossing @ San Joaquin Valley Railroad	Crossing	\$ 1,100	ATP
2707	City of Visalia, K Avenue Regional Trail - Santa Fe Street to Lovers Lane	Trail-Path	\$ 1,425	ATP
2722/2723/2749/2756/2757/2779	City of Visalia, K Avenue Regional Trail - Lovers Lane to Rocky Hill	Trail-Path	\$ 8,500	ATP
All Visalia City TAZ's	City of Visalia, Citywide Bikeway Network	Trail-Path	\$12,100	ATP
All Visalia City TAZ's	City of Visalia, Citywide Safe Routes to School Master Plan	Other/SRTS	\$ 75	ATP
2721	City of Woodlake, Kaweah Street Pedestrian Pathway	Sidewalk/SRTS	\$ 730	ATP
2721	City of Woodlake, Valencia Boulevard/Sequoia Avenue Improvements	Sidewalk/SRTS	\$ 515	ATP
2721	City of Woodlake, Magnolia Street Pedestrian Pathway	Sidewalk	\$ 775	ATP
2721	City of Woodlake, Woodlake Citywide Bikeway Network	Bike	\$ 73	ATP

# APPENDIX D

## CASE STUDIES

# APPENDIX D

## CASE STUDIES

### Introduction

This appendix summarizes analysis of VMT impacts of four case study projects in Tulare County. All four are hypothetical projects (one residential, one office, and two retail). The locations of these projects are shown in Figure D-2.

### Case Study 1: Residential Project

Following is a VMT estimate for a residential project. This case study project is presumed to be located west of Visalia, south of the Visalia Airport on Avenue 280 east of SR 99. It consists of 214 multifamily rental dwelling units and 24 single family dwelling owner-occupied units.

#### ***Analysis overview***

The analysis uses data from the California Statewide Travel Demand Model (CSTDm).

This residential project is located in Traffic Analysis Zone 2708 (TAZ 2708) with an average VMT/capita of 12.58 (see Table 3-1). This is a typical project and there is no reason to expect that it would have a higher or lower VMT/capita than the average for the TAZ. Since project VMT/capita is assumed to be equal to or above the VMT/capita of the zone in which the project is located, it has a significant VMT impact

#### ***Mitigation of Residential Project VMT***

A survey of pedestrian facilities near the project site indicates that the installation of curb ramps and sidewalk repairs are needed. Based on the ITE Trip Generation Manual, this project is expected to generate 1,857 daily trips. At a mitigation cost of \$20/daily trips, the target value of pedestrian improvements is \$37,120. The county and the applicant agree on a set of off-site pedestrian improvements with an estimated minimum cost of \$37,120. The applicant provides the pedestrian improvements as a condition of approval of the project. For reporting purposes, the assumed VMT/capita reduction is 1% of 12.58 or 0.12. The resulting VMT/capita after mitigation is 12.46 which is below the average VMT/capita in the TAZ which the project is located. After mitigation, the project has a less than significant impact.

### Case Study 2: Office Project

This case study provides an example of a VMT analysis for an office project. This hypothetical project would be located on Avenue 216 east of SR 65 in unincorporated Tulare County south of the City of Lindsay. It is an office building consisting of 200,000 square feet of office space.

#### ***Analysis overview***

The analysis used data from the California Statewide Travel Demand Model (CSTDm).

This office project is located in Traffic Analysis Zone (TAZ 2726) with an average VMT/employee of 34.32 (see Table 3-1). This is a typical project and there is no reason to expect that it would have a higher or lower VMT/employee than the average for the TAZ. Since project VMT/employee is assumed to be equal to or above the VMT/employee of the zone in which the project is located, it has a significant VMT impact

#### ***Mitigation of Residential Project VMT***

Based on the ITE Trip Generation Manual, this project is expected to generate 2,078 daily trips. At a mitigation cost of \$20/daily trip, the target value of pedestrian improvements is \$41,560. A survey of transit, bicycle, and pedestrian facilities near the project site indicates that there are no suitable improvement projects in the vicinity of the project site. A review of Table C-1 in Appendix C indicates that there are no projects in TAZ 2726 that the project could use to provide mitigation. However, Table C-1 includes a project in TAZ 2712 to install crossing improvements at the Earlimart Middle School at a cost of \$63,000. While this cost exceeds the minimum mitigation cost of \$41,560, the applicant has decided to provide this improvement in order to demonstrate a full mitigation of VMT impacts. The applicant agrees to implement this project as a condition of approval of the project. For reporting purposes, the assumed VMT/employee reduction is 1% of 34.32 or 0.34. The resulting VMT/capita after mitigation is 33.98 which is below the average VMT/capita in the TAZ in which the project is located. After mitigation, the project has a less than significant impact.

### Case Study 3: Three Rivers Variety Store Project

The project is a 9,100 square foot retail store proposed to be located in the unincorporated Tulare County community of Three Rivers along SR 198. It is also located in TAZ 2713 of the Statewide Travel Demand Model.

#### Project Trip Generation

This analysis utilizes trip generation rates from the Institute of Transportation Engineers (ITE) publication Trip Generation, 10th Edition, specifically rates for “Variety Store” (Code 813). The project is expected to generate approximately 578 daily trips on a weekday basis.

#### Need for SB 743 Analysis

OPR recommends that local-serving retail projects can be presumed to have a less than significant transportation impact. This is because local-serving retail typically reduces trip lengths by providing additional destinations that tend to replace trips to more distant retail locations. As local-serving retail it would be screened out from VMT analysis because the project would serve to shorten shopping trips

## Case Study 4: Large Retail Project

### Project Description

The project is a proposed 87,035 sq. ft. retail store, located to the west of SR 99 in the unincorporated community of Goshen. The project is located in TAZ 2718 of the Statewide Travel Demand model.

### Project Trip Generation

The trip generation of the proposed project was based on the Institute of the Transportation Engineers Trip Generation Manual, 10th Edition. The proposed project would generate 6,252 daily trips.

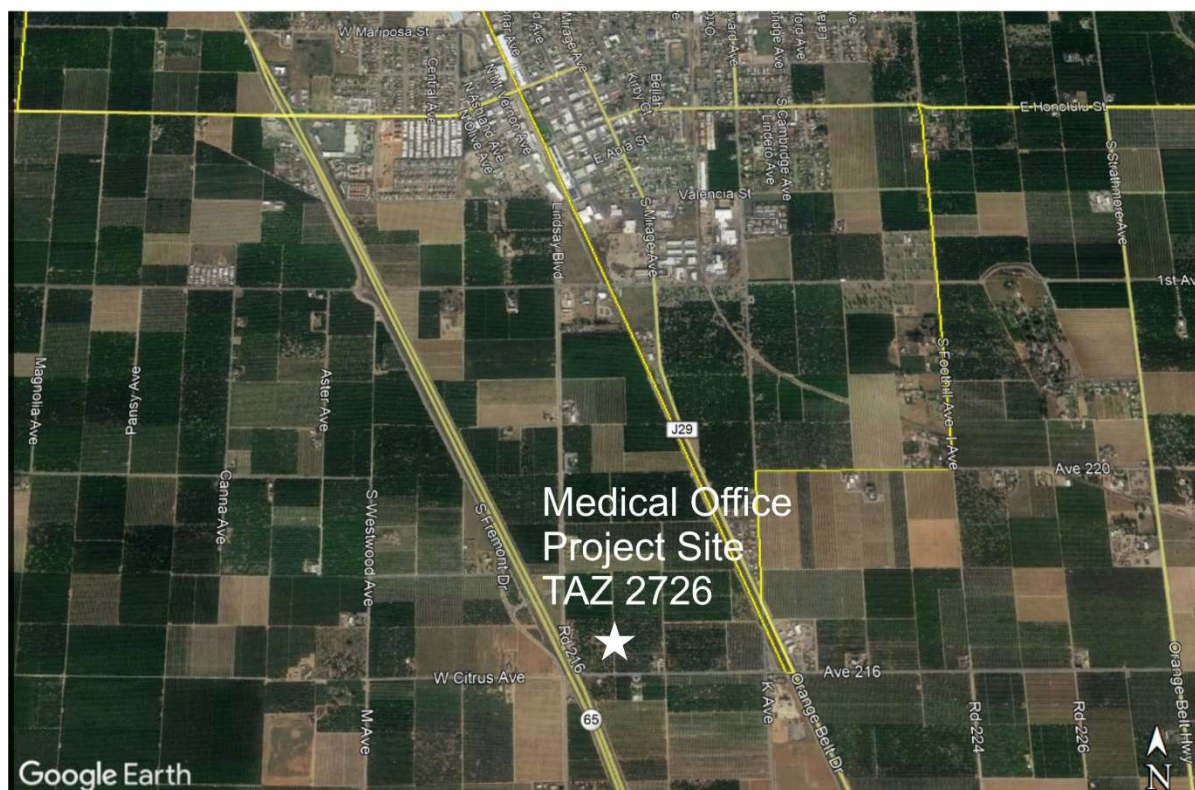
### Need for SB 743 Analysis

OPR recommends that local-serving retail projects can be presumed to have a less than significant transportation impact. This is because local-serving retail typically reduces trip lengths by providing additional destinations that tend to replace trips to more distant retail locations. For this project, the key question is whether it fits into the category of local serving. Expressed in terms of VMT generation, the question is whether the project would attract local shoppers who would otherwise travel to more distant retail locations. The County requests a market survey.

The market survey shows that the project would attract local trips and would shorten trip lengths, the project is considered to decrease VMT and the impact of the project is considered less than significant. No mitigation measures are needed.



Figure D-2  
Locations of Case Study Projects



# APPENDIX E

## GLOSSARY

## GLOSSARY OF TERMS

Key Terms	
Term	Definition
Affordable Housing Projects	Housing projects or developments designed and built specifically to be affordable to those with a median household income or below.
Average Daily Traffic	The average 24-hour traffic count at a given location.
Breakdown Space or Breakdown Lane	An area along the side of a highway where vehicles are able to stop for an emergency; in some areas these lanes or spaces are opened during high volume travel times to reduce congestion.
California Environmental Quality Act (CEQA)	A state of California statute that requires local agencies to identify significant environmental impacts of their actions and avoid or mitigate those impacts, if feasible.
Climate Action Plan	The Climate Action Plan (CAP) is designed to reduce Tulare County's greenhouse gas (GHG) emissions.
Delay	The additional travel time experienced by a driver, passenger, or pedestrian due to circumstances that impede the desirable movement of traffic. It is measured as the time difference between actual travel time and free-flow travel time.
Detection Systems	A set of traffic flow sensors that indicate the presence or passage of vehicles and provides data or information that supports traffic management applications such as signal control, freeway mainline and ramp control, incident detection, and gather of vehicle volume and classification data to meet State and Federal reporting requirements.
Development	Construction, re-construction, re-model or alteration of the size of any building structure, or area of occupancy, requiring a development permit; any grading activities requiring a development permit; change in the density or intensity of use of land requiring a development permit.
New Development	Construction of a new building structure on vacant land or to replace demolished/razed property.

## Key Terms

Term	Definition
Governor's Office of Planning and Research (OPR)	The office of Planning and Research (OPR), created by statute in 1970, is part of the Office of the Governor. OPR serves the Governor and his Cabinet as staff for long-range planning and research and constitutes the comprehensive state planning agency. (Government Code §65040).
Greenhouse Gas (GHG)	Gases that trap heat in the atmosphere. Principal GHGs include carbon dioxide (CO <sub>2</sub> ), methane (CH <sub>4</sub> ), nitrous oxide (N <sub>2</sub> O), ozone (O <sub>3</sub> ), and water vapor (H <sub>2</sub> O).
Institute of Transportation Engineers (ITE)	The Institute of Transportation Engineers is an international education and scientific association of transportation professionals who are response for meeting mobility and safety needs.
Level of Service (LOS)	Level of services (LOS) is a qualitative measure used to relate the quality of vehicle traffic service. LOS is used to analyze roadways and intersections by categorizing traffic flow and assigning quality levels of traffic based on based on performance measures like vehicle speed, density, congestion, etc.
Mitigation (as used in the California Environmental Quality Act)	An improvement that addresses the significant CEQA impacts of a project.
Mixed-Use Projects or Developments	A type of urban development, urban planning, or zoning type that blends residential, commercial, cultural, institutional, entertainment, or other uses into one space, where those functions are to some degree physically and functionally integrated.
Multimodal	Multimodal refers to multiple modes or ways of travel, such as walking, biking, riding transit or carpooling. Typically, multimodal is used in reference to street design or commuter benefits programs, designed to encourage people to use alternatives to the most common mode of travel, driving alone.
Non-Residential Development	Non-residential or commercial development includes the following land uses: industrial, retail, hotel, office, manufacturing, and mixed-use.
Tulare County Association of Governments (TCAG)	The Tulare County Association of Governments is an association of local Tulare County governments which serves as the metropolitan planning organization for the County.

## Key Terms

Term	Definition
Screening Criteria	Values, targets, or performance standards used to evaluate or compare the significance of an identified hazard, event, or associated risk to determine the tolerability. They may be defined both in quantitative and qualitative terms.
Senate Bill 743 (SB 743)	Senate Bill 743 (SB 743) requires the Governor's Office of Planning and Research (OPR) to identify new metrics for identifying and mitigating transportation impact within CEQA.
Significance Thresholds (as used in the California Environmental Quality Act)	An identifiable quantitative, qualitative, or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant
Threshold Evidence	Justification for use of a particular threshold
Traffic Analysis Zone (TAZ)	A traffic analysis zone (TAZ) is a special area delineated by state and/or local transportation officials for tabulating traffic-related data – especially journey-to-work and place-of-work statistics. A TAZ usually consists of one or more census blocks, or block groups, or census tracts.
Traffic Calming	Traffic calming is a set of street designs and traffic rules that slow and reduce traffic while encouraging walkers and cyclists to share the street.
Traffic Calming Devices	Sidewalk extensions, roundabouts and traffic circles, street narrowing, speed humps
Traffic Signal Priority (TSP)	A general term for a set of operational improvements that use technology to reduce dwell time at traffic signals for transit vehicles by holding green lights longer or shortening red lights. TSP may be implemented at individual intersections or across corridors or entire street systems.
Vehicle Miles Traveled (VMT)	Vehicle miles traveled is a measure used in transportation planning for a variety of purposes. It measures the amount of travel for all vehicles in a geographic region over a given period of time, typically a one-year period. It is calculated by adding up all of the miles driven by all cars and trucks on all of the roadways in a region. In this Guideline, VMT is measured in terms of vehicle miles of travel per day. In case of VMT analyses conducted for CEQA transportation studies, the vehicles to be analyzed are autos and light trucks. Goods movement is specifically excluded from a requirement to conduct VMT analyses.



## Key Terms

Term	Definition
Wayfinding Signage	Wayfinding signage is concerned with helping to direct travelers from point to point, or confirming progress along a route.