DEPARTMENT OF TRANSPORTATION
TRANSPORTATION PLANNING

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June 30, 2020

TO: Board of Supervisors

FROM: Natalie K. Porter, Senior Traffic Engineer

Subject: SB 743 Vehicle Miles Traveled Workshop

PURPOSE AND SUMMARY
The Department of Transportation (Transportation) is recommending the Board receive the workshop information on Senate Bill (SB) 743 and provide direction on the County's application of the significance thresholds and potential mitigation measures.

On September 27, 2013 the Governor signed into law SB 743. SB 743 was originally enacted to address transportation issues related to the development of the Golden One Center in downtown Sacramento and transit oriented places. The legislative intent of SB 743 was to 1) ensure that the environmental impacts of traffic, such as noise, air pollution, and safety concerns, continue to be properly addressed and mitigated through the California Environmental Quality Act; and 2) more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions. In January 2019, the Natural Resources Agency finalized updates to the California Environmental Quality Act (CEQA) Guidelines including the incorporation of SB 743 modifications. The CEQA Guidelines changes were approved by the Office of Administrative Law and are now in effect. Specific to SB 743, Section 15064.3(c) states, "A lead agency may elect to be governed by the provisions of this section immediately. Beginning on July 1, 2020, the provisions of this section shall apply statewide."

BACKGROUND
SB 743 changes how transportation impacts are measured under CEQA, from using vehicle level of service (LOS) to using vehicle miles traveled (VMT). The State Office of Planning and Research (OPR) have determined that the appropriate metric for the change is VMT. This change is intended to capture the impacts of driving on the environment compared to the impact on drivers. LOS or other delay metrics may still be used to evaluate the impact of projects on drivers as part of the County's land use entitlement reviews and impact fee programs. However, LOS will no longer be allowed to be used as the metric for evaluating transportation impacts under CEQA. As part of SB 734, Public Resources Code section 21099(b)(2) now provides that "level of service

or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment" for purposes of CEQA. To implement SB 743, lead agencies will need to determine appropriate VMT methodologies, thresholds, and feasible mitigation measures.

Section 15064.7. Thresholds of Significance, section (a) states, "A threshold of significance is 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 means the effect normally will be determined to be less than significant."

At the behest of County and City staff, the El Dorado County Transportation Commission (EDCTC) secured funding to assist the member agencies with implementation of SB 743. EDCTC contracted with the firm of Fehr & Peers to prepare the *El Dorado County and City of Placerville SB 743 Implementation Plan* (Attachment B). The purpose of this project was to help EDCTC partner agencies understand the specific questions that need to be addressed when making these determinations and to provide research, analysis, and other evidence to support their final SB 743 implementation decisions. EDCTC has facilitated Fehr & Peers working in direct partnership with El Dorado County and the City of Placerville transportation staff and traffic engineers to review the existing General Plan policies, travel demand model metrics, and other technical elements.

Fehr & Peers prepared several technical memoranda which addressed the following key questions that each of the EDCTC partner agencies need to consider when conducting VMT assessments.

1. Methodology – what VMT metric is preferred, and what methodology should be used to forecast 'projected generated VMT' and the 'project's effect on VMT' under baseline and cumulative conditions? Additionally, how does the selection of a threshold influence the methodology decision?
2. Thresholds – what threshold options are available to each jurisdiction and what substantial evidence exists to support the selection of a specific VMT threshold?
3. Mitigations – what would constitute feasible mitigation measures for a VMT impact given the land use and transportation context of El Dorado County and the City of Placerville?

DISCUSSION

Metrics

VMT can be calculated using two different types of metrics: absolute metrics and efficiency metrics. An absolute metric measures a specific amount of VMT, such as total VMT on the roadway network in El Dorado County. An efficiency metric expresses VMT as a ratio or rate, such as VMT per capita. Air quality and GHG emissions analysis for CEQA use total VMT as an input. However, the OPR Technical

Advisory on SB 743 recommends use of efficiency metrics for the transportation analysis, such as VMT/resident, VMT/employee, or VMT/service population. Service population is defined as the total of population, employment, and students. Service population can also include visitors, if data is available.

An efficiency metric acknowledges that population and employment centers are still growing statewide. Total VMT is currently projected to increase over time, but a reduction in the efficiency metric may indicate that land use patterns and roadway networks are becoming more efficient.

1. Methodology

VMT Methodology refers to the tools available to calculate the chosen metric. The methodology can range from a qualitative discussion to a detailed analysis that utilizes a travel demand model. Any tool will need to be based on the same travel demand model or other data used to establish thresholds, in order to provide an "apples to apples" comparison between the VMT estimate and the thresholds. A factor in defining the methodology includes a calculation of project generated VMT versus a project's effect on VMT. Project generated VMT is a calculation of how many trips enter and leave a project site multiplied by their trip lengths. A project's effect on VMT is an estimate of the net increase or decrease of vehicle travel. A project's effect on VMT can only be calculated in a travel demand model.

The *El Dorado County and City of Placerville SB 743 Implementation Plan*, July 22, 2019 provides the summaries below. Text from each technical memoranda in the plan are reproduced in whole or part in the following sections.

I. Baseline VMT Methodology and Data

Summary: Multiple VMT metric forms are available for lead agencies to consider when analyzing VMT impacts. For this study, base year (2016) and future year (2040) total daily VMT per service population (i.e., population plus employment) was calculated using outputs from the El Dorado County Travel Demand Model. Additionally, base year (2012) and future year (2036) total daily VMT per service population and daily household VMT per capita were calculated using the Sacramento Council of Governments (SACOG) SACSIM activity-based model. Also, the SACSIM household VMT per resident estimates were compared to similar VMT estimates based on data from the California Household Travel Survey (CHTS). The VMT estimates and comparisons of the VMT measures were displayed in a series of graphs and maps to aid in the determination of appropriate VMT metrics and source data for use in El Dorado County and the City of Placerville. El Dorado County and City of Placerville staff recommend the use of the El Dorado County Travel Demand Model, as it is currently used to evaluate proposed projects within EDCTC partner jurisdictions and is consistent with the County and City General Plans. Additionally, compared to the El Dorado County Travel Demand Model, the SACSIM model takes significantly longer to

run and takes longer to modify to accommodate alternatives or update. This translates into more costly transportation studies.

The following Table 1: Total Daily VMT and Total Daily VMT per Service Population, lists VMT results from both the El Dorado County Travel Demand Model and the SACOG SACSIM Model. The VMT is based on the number of trips multiplied by the average trip lengths per type, and then summed. Both models have the truncation of trips outside the model limits. This is being addressed by Fehr & Peers for the El Dorado County model and SACOG is doing the same for the SACSIM.

Table 1: Total Daily VMT and Total Daily VMT per Service Population

Jurisdiction	Community Region	Model	Base Year		Future Year	
			Total Daily VMT	Total VMT per Service Population	Total Daily VMT	Total VMT per Service Population
El Dorado County	Unincorporated El Dorado County	El Dorado County	1,641,730	24.3	1,978,575	23.6
		SACSIM	2,388,214	25.7	2,826,372	25.6
	El Dorado Hills	El Dorado County	882,365	17.2	1,222,823	15.6
		SACSIM	883,933	19.5	1,166,394	16.9
	Placerville	El Dorado County	343,065	15.7	404,580	15.8
		SACSIM	142,194	9.5	192,127	9.9
	Shingle Springs	El Dorado County	129,063	25.1	196,806	21.8
		SACSIM	80,708	19.1	96,622	14.8
	Cameron Park	El Dorado County	418,017	18.9	558,710	18.2
		SACSIM	421,445	22.6	541,774	20.6
	El Dorado Diamond Springs	El Dorado County	289,307	17.4	436,573	17.3
		SACSIM	74,551	11.5	78,959	10.6
	El Dorado County Total	El Dorado County	3,703,547	20.1	4,798,067	19.0
		SACSIM	3,991,046	21.9	4,902,247	20.5
City of Placerville	City of Placerville Total	El Dorado County	221,470	15.4	251,904	15.4
		SACSIM	80,914	7.9	108,893	8.2

Graphical representations of the data is included in the technical memorandum (Attachment C).

The data indicates that, on balance, using the Community Regions as described in the El Dorado County General Plan support the VMT reduction goals of SB 743. The VMT per service population for every community region is projected to decrease under 2040 future year conditions except for the Placerville Community Region. The City of Placerville is in the middle of the Placerville Community Region, and the VMT reported in the table for this region does not include the City of Placerville data. The County's General Plan encourages growth within the Community Regions, this is a policy

supportive of a VMT rate reduction. By focusing growth in the Community Regions, the General Plan is promoting development in designated areas with facilities and services, that could result in shortened trip lengths and lower VMT.

This technical memorandum indicated the current El Dorado County model structure would need to be modified to generate the appropriate household VMT. EDCTC staff obtained a second grant to facilitate the update to the El Dorado County TDM. The work has been completed and peer reviewed by an independent third party transportation engineering firm. A description of the changes to the model are included in the powerpoint presentation attached to this item.

Staff will request the Board concur with the use of the updated El Dorado County Travel Demand Model for VMT analysis.

For baseline conditions, staff is recommending the use of the El Dorado County Travel Demand Model and the General Plan Community Region VMT calculated from the model, instead of the SACOG VMT, as the threshold to compare baseline and baseline plus project conditions against.

VMT generation is highly dependent on the location of a project site with respect to the availability of alternative transportation modes and its location with respect to origins and destinations of trips within the regional area. Average vehicle trip length, which is an important component of VMT, is highly influenced by these factors. Transportation models are developed to take these factors into account and are widely accepted for analysis of factors related to trip-making behavior.[1]

II. Tool Assessment

Summary: The capabilities of travel forecasting models along with 11 sketch model tools were reviewed to determine their strengths and weaknesses in generating appropriate VMT results for SB 743 analysis and testing VMT mitigation strategies.

FHWA defines a sketch model tool as sketch-planning methodologies and tools that produce general order-of-magnitude estimates of travel demand and traffic operations in response to transportation improvements. They allow for the evaluation of specific projects or alternatives without conducting an in-depth engineering analysis. Therefore, sketch-planning approaches are typically the simplest and least costly of the traffic analysis techniques.

The travel forecasting model review resulted in the El Dorado County model being recommended for VMT impact analysis by EDCTC partner agencies. A customized forecasting and screening tool was developed using El Dorado County model inputs and outputs. This tool provides an initial screening of potential VMT impacts for

[1] Sacramento Area Council of Governments *Senate Bill 743 Implementation Tools*, May 2020

projects and provides evidence to support presumptions of less than significant impact findings.

The sketch model tools were determined to be most appropriate for testing VMT mitigations, with GreenTRIP Connect and TDM+ being the most effective. Since these tools rely on Transportation Demand Management (TDM) strategies to reduce VMT, an important limitation was highlighted that many of these strategies are dependent on the ultimate building tenants of land use projects. Since tenants can change over time, potential VMT reductions of TDM strategies have a low level of confidence. Hence, the use of TDM strategies is likely to require on-going monitoring to verify performance to function as effective CEQA mitigation.

Tool Recommendations for EDCTC Partner Agencies

According to the OPR Technical Advisory, the tools used to evaluate VMT must be consistent with the methodology used to determine VMT thresholds. As of July 1, 2020, VMT is the metric that must be used in CEQA analysis to determine impacts and mitigations for projects. To maintain consistency between methods and thresholds, Fehr & Peers did not recommend the use of the available sketch planning tools to estimate project generated VMT for land use projects within El Dorado County or the City of Placerville. However, the sketch tools may be useful for evaluating the impacts of potential TDM strategies.

If an efficiency form of VMT, a metric that employs a denominator, (VMT per service population, VMT per resident, or VMT per employee) is selected as the metric that is used to define the VMT thresholds, then Fehr & Peers has developed a customized screening and forecasting tool (i.e., spreadsheet or web-app). This tool reflects the specific transportation and land use context of El Dorado County and the City of Placerville. The tool does the following:

- Identifies the Traffic Analysis Zone (TAZ) associated with the project location.
- Identifies the Community Region of the project, based on the project's associated TAZ.
- Determines if the TAZ VMT per service population is less than the Community Region VMT per service population (other efficiency forms of VMT could also be used).
- Determines if the project meets the screening criteria.
- Provides baseline and cumulative estimates of project generated VMT if the project fails to be screened out including VMT estimates for use in other sections of CEQA analysis, such as air quality, greenhouse gases, and energy based on TAZ VMT averages.

Key features of this tool are described in the following table:

Table 1: VMT Forecasting Tool Specifications*

Feature	Description	Elements	Comments
Setup inputs	Travel demand model data required to prepare the tool for use	For each TAZ, for the model base year and future year: • Community Regions • Land use • Total VMT per service population For each Community Region, for the model base year and future year: • Total VMT per service population	Only needs to be updated when the model is updated
Project inputs	Data required for each project	• Project baseline year (year Notice of Preparation is filed) • Community Regions • Land use • Is the project consistent with the general plan? (yes/no) • Is project consistent with RTP? (yes/no) • Does the project consist exclusively of local serving retail uses with a total project size of less than 50,000 square feet? (yes/no)**	
Tool outputs	Results provided for each project	• Does the project satisfy the screening criteria? If yes, what is the basis for determination • Estimated project total VMT per service population (project baseline and future years) • Estimated project total VMT (project baseline and future years)	VMT estimates based on TAZ average

*Table 1 in the Review and Assessment of Existing Planning/Travel Demand Tools for SB 743 Technical Memorandum
**The project size was determined by OPR and is cited in the *OPR Technical Advisory on Evaluating Transportation Impacts Under CEQA,* December 2018, pp. 16-17.

Staff recommends the County use the tool created specifically for El Dorado County and the City of Placerville for screening purposes and smaller land use projects.

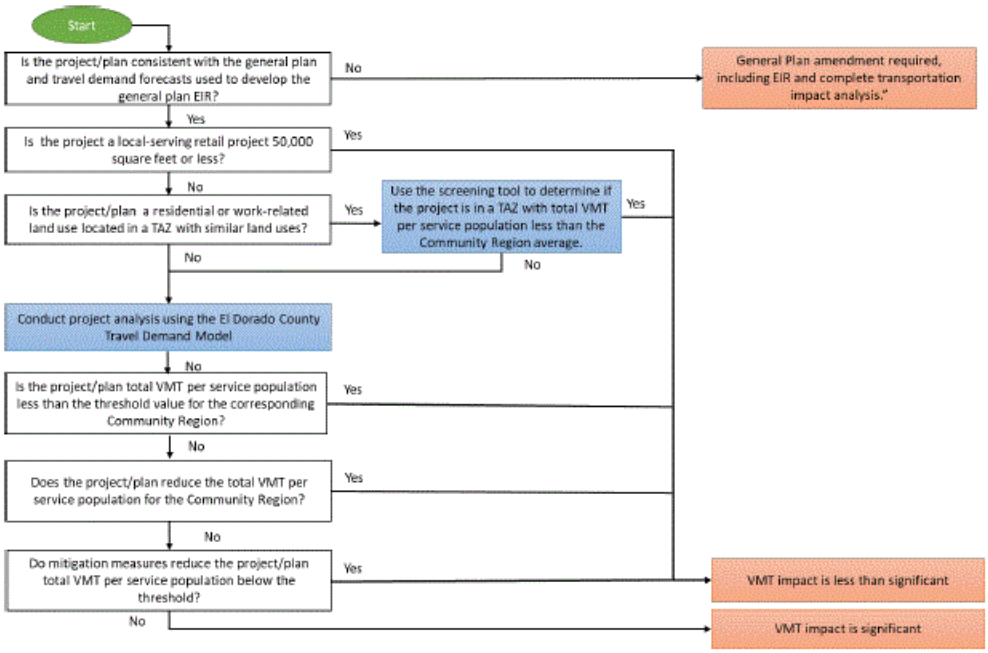
III. Case Study Evaluations

Summary: Recommended SB 743 VMT analysis methodologies developed as part of this project were applied to the following four case study projects to evaluate the VMT analysis process and outcomes:
• A residential development project within the City of Placerville
• A residential development within unincorporated El Dorado County
• A commercial site redevelopment project
• An HOV lane project

These case study evaluations step through the process of evaluating the four projects using the VMT screening tool, conducting a full VMT analysis using the El Dorado County Travel Demand Model, and evaluating potential VMT mitigation measures. The case study evaluations memorandum includes flow charts that describe the VMT analysis process for land use projects in El Dorado County and the City of Placerville,

and a separate chart that describes the process for transportation projects. The following figures are from the Case Studies Technical Memorandum: Figure 1 is the flow chart for El Dorado County VMT analysis process for land use projects.

Figure 1: VMT Analysis Process for Land Use Projects within the unincorporated area of the Western Slope of El Dorado County.



Staff recommends the County use the VMT analysis process flow chart for land use projects. .

1. Thresholds

Thresholds for SB 743 need to be established in order to evaluate a project's transportation impact related to VMT. El Dorado County has discretion to establish unique thresholds if they are supported by substantial evidence.

The OPR Technical Advisory recommends thresholds for three land use types within Metropolitan Planning Organizations (MPO): residential, office and retail. For residential and office projects, they recommend a threshold of 15% below baseline for VMT/capita and VMT/employee respectively. For retail projects, OPR suggests that a net increase in VMT may be considered a significant impact.

Additionally, the legislative intent of SB 743 should be considered when establishing VMT thresholds. The legislative intent of SB 743 is to, "More appropriately balance the needs of congestion management with statewide goals related to inflill development,

promotion of public health through active transportation, and reduction of greenhouse gas (GHG) emissions."

IV. Existing Plan and Policy Review

Summary: The EDCTC Regional Transportation Plan, El Dorado County General Plan, and the City of Placerville General Plan, along with their corresponding EIRs, were all reviewed to identify any explicit VMT reduction expectations that could apply as impact thresholds. The VMT estimates from the EDCTC Regional Transportation Plan and the El Dorado County General Plan both include absolute increases in VMT between the base year and cumulative year scenarios. None of these documents had explicitly defined VMT reduction goals, but all three of the documents contain goals and policies that are supportive of reducing VMT. The goals and policies within the El Dorado County General Plan that are supportive of reducing VMT are listed in the Thresholds section of the implementation plan in the Existing Plan and Policy Review for Opportunities and Issues Related to SB 743 Implementation Technical Memorandum (Attachment B, starting on page 57). There are thirteen Land Use Element policies, sixteen Transportation and Circulation Element policies, and eight Public Health, Safety, and Noise Element policies that are supportive of VMT mitigation measures.

V. Thresholds Assessment

Summary: Potential VMT thresholds were assessed within the context of the objectives of SB 743, legal opinions related to the legislation, CEQA Guidelines updates, and the technical advisory produced by the Governor's Office of Planning and Research (OPR). Fehr & Peers identified four threshold options for consideration by lead agencies.

1. Thresholds consistent with OPR's Technical Advisory, with a 15% reduction below baseline conditions.
2. Thresholds consistent with lead agency air quality, GHG reduction, and energy conservation goals presuming compliance with California Air Resources Board's recommendations of a 16.8% reduction in light-duty vehicle VMT and 14.3% reduction in total VMT compared to baseline (2016) conditions.
3. Thresholds consistent with local general plans or the RTP/SCS future year VMT projections by Jurisdiction or Community Region.
4. Thresholds based on new development projects performing at or better than baseline (2016) VMT averages by Jurisdiction or Community Region.

<u>Lead Agency Discretion in Setting VMT Thresholds</u>

Until SB 743, the CEQA Guidelines Section 15064.7 allowed lead agencies the discretion to select their own transportation metrics and thresholds although substantial evidence was required to support their decisions. SB 743 takes the 'metric' choice away by requiring VMT. As to thresholds, additional questions have arisen as listed below.

Question 1 – Do lead agencies have discretion to set a different VMT threshold than recommended by OPR?
Question 2 – Do lead agencies need to establish VMT thresholds for cumulative impacts?
Question 3 – Do lead agencies need to use the same VMT methodology for setting thresholds and for conducting project VMT forecasts?

The first two questions require a legal perspective and were assessed by Remy Moose Manley (RMM) as part of the WRCOG SB 743 Implementation Pathway project. Their full opinion is available as part of the WRCOG documentation at http://www.fehrandpeers.com/wrcog-sb743/ while a summary of their findings as augmented by other project team members is presented below.

Question 1 Response – Setting a threshold lower than the 15-percent reduction recommended by OPR in their *Technical Advisory* is likely legally defensible, so long as the threshold is supported by substantial evidence. The substantial evidence is critical in the threshold setting process and should explain why the OPR recommended threshold is not appropriate for the lead agency and why another threshold was selected. This evidence will be the basis for any legal defense if the threshold is challenged and should carefully consider the definition of substantial evidence contained Section 15384 of the CEQA Guidelines.

> Section 15384(a) "Substantial evidence" as used in these guidelines means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. Whether a fair argument can be made that the project may have a significant effect on the environment is to be determined by examining the whole record before the lead agency. Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly erroneous or inaccurate, or evidence of social or economic impacts which do not contribute to or are caused by physical impacts on the environment does not constitute substantial evidence.
>
> Section 15384(b) Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.

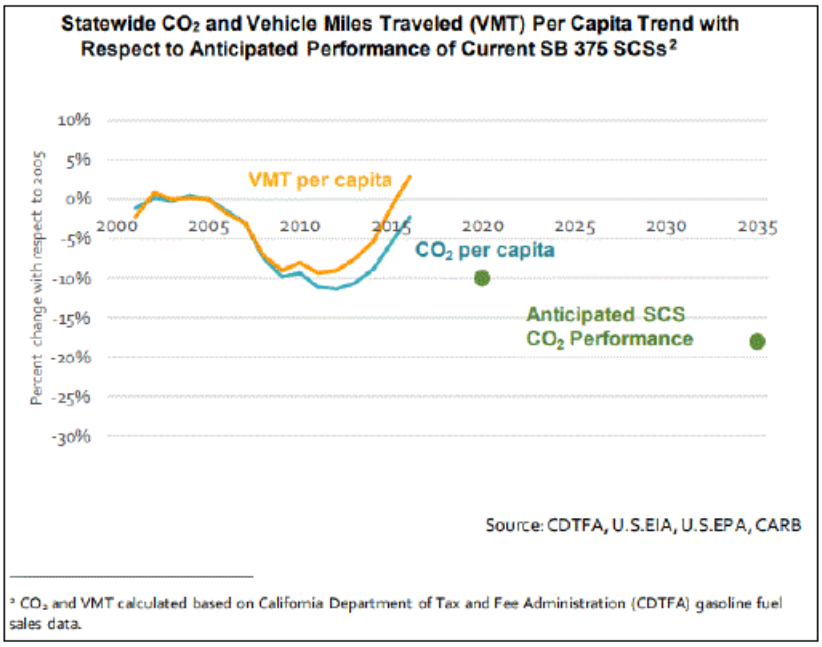
This opinion considers the fact that the 15-percent reduction is not included in the statute or the updated CEQA Guidelines; rather it is only included in OPR's *Technical Advisory*. Section 21099, subdivision (e) states, "This section does not affect the authority of a public agency to establish or adopt thresholds of significance that are more protective of the environment." A reasonable interpretation of this language is that subdivision (e) is referring to the SB 743 statute language in Section 21099 and possibly the related CEQA Guidelines changes that would result from OPR's compliance with the direction in 21099(b)(1) to recommended revisions to the CEQA Guidelines. The statute does not contain specific thresholds and the recommended

revisions to the CEQA Guidelines only include statements about what land use project effects may be presumed to have a less than significant VMT impact. Additional evidence allowing for a lower threshold is also found in the discussion above about the recognition of land use context influencing the feasibility of VMT reduction. Other substantial evidence supporting the limitations of VMT mitigation based on land use context can also be found in *Quantifying Greenhouse Gas Mitigation Measures,* CAPCOA, 2010 and upcoming updates to this information from ARB based on their Zero-Carbon Buildings in California: A Feasibility Study.

Question 2 Response – Lead agencies should address VMT impacts in the cumulative context. The CEQA Guidelines (and the case law) are clear that consideration of cumulative impacts is key to CEQA compliance. That said, a separate quantitative threshold may not be required if the threshold applied for project-specific impacts is cumulative in nature. VMT thresholds based on an efficiency form of the metric such as VMT per capita, can address project and cumulative impacts in a similar manner that some air districts do for criteria pollutants and GHGs. Since VMT is a composite metric that will continue to be generated over time, a key consideration for cumulative scenarios is whether the rate of VMT generation gets better or worse in the long-term. If the rate is trending down over time consistent with expectations for air pollutant and GHGs, then the project level analysis may suffice. However, the trend direction must be supported with substantial evidence. This creates a potential issue for VMT because VMT rates in California have been increasing in direct conflict with RTP/SCS projections showing declines. The chart below from the *2018 Progress Report California's Sustainable Communities and Climate Protection Act,* California Air Resources Board, November 2018 charts recent VMT per capita trends. This evidence could be used to justify the need for separate cumulative analysis to verify a project's long-term effects.

For some projects, measuring project generated VMT will only tell part of the impact story. Measuring the "project's effect on VMT" may be necessary especially under cumulative conditions to fully explain the project's impact. This occurs because of the nature of discretionary land use decisions. Cities and counties influence land supply through changes to general plan land use designations and zoning for parcels. These changes rarely, if ever, influence the long-term amounts of regional population and employment growth. Viewed through this lens, a full disclosure of VMT effects requires capturing how a project may influence the VMT generated by the project and nearby land uses. Also, some mitigation strategies that improve walking, bicycling, or transit to/from the project site can also reduce VMT from neighboring land uses (i.e., installing a bike share station on the project site would influence the riding behavior of project residents and those living and working nearby).

Figure 1: California VMT Trends



Source: *2018 Progress Report California's Sustainable Communities and Climate Protection Act*, California Air Resources Board, 2018

Question 3 Response – Lead agencies need to use consistent methods when forecasting VMT for threshold setting and project analysis to ensure an apples-to-apples comparison for identifying potential impacts. The project team has confirmed through case study comparisons that failure to comply with this *Technical Advisory* recommendation can lead to erroneous impact conclusions. This is an important finding since the *Technical Advisory* also accepts that VMT analysis can be performed using sketch planning tools. Off-the-shelf, sketch planning tools for VMT analysis do not contain trip generation rates or trip lengths consistent with local and regional travel forecasting models. These models are the most likely source for city-wide and region-wide VMT estimates used in setting thresholds since sketch planning tools cannot produce these aggregate level VMT metrics. The *Technical Advisory* partially recognizes this issue by recommending that sketch planning tools use consistent trip lengths as the models used to produce thresholds but does not include a similar recommendation for trip generation rates. Both input variables need to be consistent with the travel forecasting model to produce accurate project impact analysis results.

Specific question for El Dorado County may include: how do we implement VMT mitigations if they are divergent to the County's General Plan level of service significance thresholds? Given that the thresholds on level of service are included in the General Plan via voter initiative, the County cannot simply change the policies through the General Plan amendment process. Does the County need to adopt a separate VMT transportation network that may be different than the Circulation Map in

the General Plan? Should the current Circulation Map transportation network be combined with a map similar to the EDCTC's Active Transportation Plan? If so, how do you pay for the non-capacity increasing transportation improvements? Do we create a separate fee program to provide a potential mitigation bank? The current TIM Fee program does not have a specific VMT component, however, there are elements to the program that are supportive of VMT reduction principles such as the Transit projects line item.

Recommendations for EDCTC partner agencies

So how should lead agencies approach VMT threshold setting given their discretion? Since an impact under CEQA begins with a change to the existing environment, a starting level for potential thresholds would the baseline (i.e., existing condition) VMT, VMT per capita, VMT per employee, or VMT per service population. Since VMT will increase or fluctuate with population and employment growth, changes in economic activity, and expansion of new vehicle travel choices (i.e., Uber, Lyft, Chariot, autonomous vehicles, etc.), expressing VMT measurement in an efficiency metric form allows for more direct comparisons to baseline conditions when it comes to land use projects, land use plans (i.e., general plan, specific plan, or community plan), and transportation projects. Establishing a threshold such as baseline VMT per service population would be essentially setting an expectation that future land uses perform similar to existing land uses. If this is the floor, then expectations for VMT reduction can increase depending on a community's values related to vehicle use and its associated effects on mobility, economic activity, and environmental consequences. Working towards the 15-percent reduction recommended in the *Technical Advisory* becomes more feasible as the land use context changes to urban areas with higher densities and high-quality transit systems. In central cities, the 15-percent reduction can be surpassed because of the close proximity of land uses and the multiple options for accessing destinations by walking, using bicycles or scooters, sharing vehicles, and using transit.

While OPR has developed specific VMT impact thresholds for project-related impacts, current practice has not sufficiently evolved where a clear line can be drawn between 'acceptable' and 'unacceptable' levels of VMT change for the sole purpose of determining a significant transportation impact. Until SB 743, VMT changes were viewed through an environmental lens that focused on the relationship to fuel consumption and emissions. For transportation purposes, VMT has traditionally been used to evaluate whether land use or transportation decisions resulted in greater dependency on vehicle travel. Trying to determine whether a portion of someone's daily vehicle travel is unacceptable or would constitute a significant transportation impact is generally not clear to lead agencies.

Another consideration in threshold setting is how to address cumulative VMT impacts and whether addressing them in the general plan EIR is advantageous for streamlining the review of subsequent land use and transportation projects given CEQA relief available through SB 375 or CEQA Guidelines Section 15183. This section of the

Guidelines relieves a project of additional environmental review if the environmental impact was adequately addressed in the general plan EIR and the project is consistent with the general plan (see below).

> 15183. Projects Consistent With A Community Plan Or Zoning
> (a) CEQA mandates that projects which are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. This streamlines the review of such projects and reduces the need to prepare repetitive environmental studies.

The use of Section 15183 also addresses cumulative impacts as acknowledged in Section 15130(e).

> 15130. Discussion Of Cumulative Impacts
> (e) If a cumulative impact was adequately addressed in a prior EIR for a community plan, zoning action, or general plan, and the project is consistent with that plan or action, then an EIR for such a project should not further analyze that cumulative impact, as provided in Section 15183(j).

For the City of Placerville and El Dorado County, addressing VMT impacts in general plan EIRs could be useful in understanding how VMT reduction should be balanced against other community values when it comes to setting new VMT impact thresholds for SB 743. We are not suggesting the Board authorize a General Plan EIR to address VMT at this time. This subject would best be addressed during the next five year update to the General Plan.

Given this information, lead agencies have at least four options for setting VMT thresholds as outlined below.

OPTION 1 – Rely on the OPR Technical Advisory Thresholds

The first option is to simply rely on the threshold recommendations contained in the OPR Technical Advisory. As noted above, the general expectation is that land use projects should be measured against VMT per capita or VMT per worker threshold of 15-percent below that of baseline conditions (i.e., existing development). Specific VMT thresholds for residential, office (work-related), and retail land uses are summarized below.

- Residential projects – A proposed project exceeding a level of 15 percent below existing (baseline) VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as regional VMT per capita or as city VMT per capita.
- Office projects – A proposed project exceeding a level of 15 percent below existing (baseline) regional VMT per employee may indicate a significant transportation impact.

• Retail projects – A net increase in total VMT may indicate a significant transportation impact.

For land use plans (i.e., a specific plan), a significant impact would occur if the respective thresholds above were exceeded in aggregate. This means that new population and employment growth combined with the planned transportation network would need to generate future VMT per capita or VMT per worker that is less than 85 percent of the baseline value to be considered less than significant. Land use project and land use plans would also need to be consistent with the applicable RTP/SCS.

El Dorado County is within the Sacramento Area Council of Governments (SACOG) metropolitan planning organization (MPO) jurisdiction. The OPR guidance on significance thresholds would be for fifteen percent below the regional average, in this instance the SACOG region. OPR's Technical Advisory provides some guidance for non-MPO areas within the state, and notes that in rural areas of non-MPO counties in the state, fewer option may be available for reducing VMT, therefore significance thresholds may be determined on a case-by-case basis. El Dorado County has a large percentage of rural lands and the VMT for the County is one of the highest for the SACOG region. It would be extremely difficult for El Dorado County projects to have a VMT that is fifteen percent below the regional average. OPR does not give guidance on rural areas that are within MPO's, therefore we must supply substantial evidence that SACOG's regional average should not be applied to El Dorado County. Staff is of the opinion that the analysis in the various technical memoranda in the El Dorado County and City of Placerville SB 743 Implementation Plan provides substantial evidence for the local jurisdictions to use the General Plan Community Regions as the basis for significance thresholds.

A potential limitation of the OPR recommendations is that the substantial evidence used to justify the thresholds is largely based on the state's air quality and GHG goals. Three issues arise from this reliance.

• The OPR recommended threshold does not establish a level of VMT reduction that would result in the state meeting its air quality and GHG goals according to the *California Air Resources Board 2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals* (2019). This may create confusion with air quality and GHG impact analysis in environmental documents, which should already address the influence of VMT.

• The OPR recommended thresholds do not directly reflect expectations related to the other SB 743 objectives related to statewide goals to promote public health through active transportation, infill development, multimodal networks, and a diversity of land uses. Recommending a reduction below baseline levels is consistent with these objectives, but the numerical value has not been tied to specific statewide values for each objective or goal.

- State expectations for air quality and GHG may not align with local/lead agency expectations. Using state expectations for a local lead agency threshold may create inconsistencies with local city or county general plans.

For land use projects staff is recommending the use of OPR thresholds compared with the appropriate Community Region average VMT and the overall County average for projects outside of a Community Region for baseline and baseline plus project conditions.

OPTION 2 – Set Thresholds Consistent with Lead Agency Air Quality, GHG Reduction, and Energy Conservation Goals

This option sets a threshold consistent with a lead agency's air quality, GHG reduction, and energy conservation goals. This approach requires that local air quality and GHG reduction goals in general plans, climate action plans, or GHG reduction plans comply with the legislation and associated plans described above on pages 5 and 6 (in the SB 743 Thresholds Assessment TM). In general, most of the expectations set through legislation are related to the state's GHG reduction goals that were originally captured in EO S-3-05.

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

SB 32 expanded on these goals and added the expectation that the state should reach 40 percent below 1990 levels by 2030 followed by SB 391 that requires the California Transportation Plan to support 80 percent reduction in GHGs below 1990 levels by 2050. With respect to the land use and transportation sectors, SB 375 tasked ARB with setting specific GHG reduction goals through the RTP/SCSs prepared by Metropolitan Planning Organizations (MPO). For El Dorado County, SACOG is the applicable MPO for air quality.

The ARB *Scoping Plan* and *Mobile Source Strategy* provide analysis related to how the state can achieve the legislative and executive goals while the Caltrans *Strategic Management Plan* and *Smart Mobility Framework* provide supportive guidance and metrics. An important recognition of the ARB *Scoping Plan* and *Mobile Source Strategy* is that the initial SB 375 targets were not aggressive enough. The ARB *2017 Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals* document provides updated information on VMT reductions need to meet the State's GHG emission reduction targets by 2050. This document identifies two specific thresholds to meet these targets, a 14.3% reduction in total VMT per capita, and a 16.8% reduction in light-duty vehicle VMT per capita. While this evidence is tied largely to the state's emission reduction goals, the proposed VMT reductions associated with this approach to thresholds would be supportive of multimodal networks, infill development, and greater land use diversity.

One benefit of relying on ARB or other state agencies for a threshold recommendation is the CEQA Guidelines provision in Section 15064.7(c). When adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.

ARB meets the criteria of being a public agency and having noted expertise in the areas of VMT and emissions analysis. Further, the recommended threshold values above were developed in specific consideration of SB 743 requirements.

One other agency threshold to consider is Caltrans. The Local Development-Intergovernmental Review (LD-IGR) Branch at Caltrans (http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa.html) has responsibility to reduce potential adverse impacts of local development on the state transportation system. As part of its responsibilities, each district branch performs reviews of CEQA environmental documents for local land use projects. These reviews include providing expectations for transportation impact analysis such as metrics and thresholds. Caltrans has published initial guidance related to SB 743 implementation.

• *Local Development – Intergovernmental Review Program Interim Guidance*, Caltrans, November 9, 2016 (http://www.dot.ca.gov/hq/tpp/documents/RevisedInterimGuidance11092016.pdf)

When Caltrans reviews CEQA documents, they may function as a reviewing agency or a responsible agency. In a responsible agency role, Caltrans has approval authority over some component of the project such as an encroachment permit for access to the state highway system. Comments from Caltrans should be adequately addressed, and special attention should be paid to those comments when Caltrans serves as a responsible agency since an adequate response may be required to obtain their required approval. The interim guidance above does not endorse the *Technical Advisory* recommendations for thresholds; it only requires IGR staff to 'comment' on VMT analysis. Caltrans is working to establish specific VMT thresholds per conversations with Alyssa Begley, SB 743 Program Implementation Manager with Caltrans. Further, Caltrans may have establish GHG thresholds that could also serve as VMT thresholds.

Caltrans working documents include a Final Implementation Timing Memo, The Draft Transportation Analysis Framework (TAF), and the Draft Transportation Analysis under CEQA (TAC). The documents are located here: https://dot.ca.gov/programs/transportation-planning/office-of-smart-mobility-climate-change/sb-743.

In the draft *Interim Guidance: Determining CEQA Significance For Greenhouse Gas Emissions for Projects on the State Highway System,* California Department of

Transportation, 2018, Caltrans recommends that any increase in GHG emissions would constitute a significant impact.

Since any increase in VMT would result in an increase in GHG emissions, lead agencies could rely on this Caltrans threshold for VMT purposes using the same 15064.7(c) provision above. Using this threshold would result in most land use projects and land use plans resulting in significant impacts but it would also result in the maximum feasible mitigation for VMT.

OPTION 3 – Set Thresholds Consistent with the General Plan or RTP/SCS Future Year VMT Projections by Jurisdiction or Community Region

VMT is a composite metric that is created as an output of combining a community's long-term population and growth projections with its long-term transportation network (i.e., the general plan). Other variables are also in play related to travel behavior, but land use changes and transportation network modifications are the items largely influenced or controlled by cities and counties. As such, Placerville and the El Dorado County unincorporated area already have a VMT growth budget. This is the amount of VMT that is forecast to be generated from their general plans combined with other travel behavior inputs for the region as captured in local and regional travel forecasting models. This VMT growth has already been 'approved' by the jurisdiction, the region, and the state and could serve as the basis of a VMT threshold expressed as a VMT growth budget or as a VMT efficiency metric based on the future year VMT per capita, VMT per employee, or VMT per service population. The measurement of VMT could occur at the jurisdictional or sub-area (i.e., community regions) level.

Potential limitations of this approach relate to the lack of a 'baseline plus project' analysis and travel forecasting model sensitivity. If a general plan includes policies or implementation programs designed to reduce VMT through transportation demand management (TDM) strategies, the current local and regional models did not include these effects. Further, current local and regional models do not capture major disruptive trend effects such as transportation network companies (TNCs), autonomous vehicles (AVs), and internet shopping. Including baseline and baseline plus project analysis could help capture some of these effects to the extent they are already influencing travel behavior.

The El Dorado County General Plan Transportation and Circulation Element is a LOS driven element. The LOS components must remain in place until the voters determine that VMT should replace LOS as the metric for General Plan compliance in regards to transportation. However, policies within the General Plan are supportive of VMT reducing growth. The goals and policies within the El Dorado County General Plan that are supportive of reducing VMT are listed in the Thresholds section of the implementation plan in the Existing Plan and Policy Review for Opportunities and Issues Related to SB 743 Implementation Technical Memorandum (Attachment B, starting on page 57). There are thirteen Land Use Element policies, sixteen

Transportation and Circulation Element policies, and eight Public Health, Safety, and Noise Element policies that are supportive of VMT mitigation measures.

Additionally, as shown in Table 1: Total Daily VMT and Total Daily VMT per Service Population, the General Plan anticipates reducing the rate of VMT by implementing the General Plan. The VMT per service population for every community region is projected to decrease under 2040 future year conditions except for the Placerville Community Region. The City of Placerville is in the middle of the Placerville Community Region, and the VMT reported in the table for this region does not include the City of Placerville data. This data indicates a compliance with the intent of SB 743 and supports the use of a local threshold for analysis purposes. The County's General Plan encourages growth within the Community Regions, this is a policy supportive of a VMT rate reduction. By focusing growth in the Community Regions, the General Plan is promoting development in designated areas with facilities and services, that could result in shortened trip lengths and lower VMT.

Staff supports the use of this option for cumulative purposes. The actual percentage decrease that will be required of new land use projects should begin with the OPR recommendations of 15% below the projected rate for residential and office projects. The proposed reductions should be monitored and adjusted as data is collected to support a change.

OPTION 4 – Set Thresholds Based on Baseline VMT Performance

As noted above, an impact under CEQA begins with a change to the existing or baseline environment. There are a range of approaches to using this starting point for VMT impact analysis. At one end of the spectrum is 'total daily VMT' generated under baseline conditions. Setting this value as the threshold for a jurisdiction basically creates a budget where any increase would be a significant impact. Alternatively, the baseline VMT per capita, VMT per employee, or VMT per service population could be used to establish an efficiency metric basis for impact evaluation. Using this form of VMT would mean that future land use projects would be expected to perform no worse than existing land use projects and only projects that cause an increase in the rate of VMT generation would cause significant impacts. Since VMT will increase or fluctuate with population and employment growth, changes in economic activity, and expansion of new vehicle travel choices (i.e., Uber, Lyft, Chariot, autonomous vehicles, etc.), expressing VMT measurement in an efficiency metric form allows for more direct comparisons to baseline conditions when it comes to land use projects, land use plans, and transportation projects. Setting a threshold based on baseline levels should consider how the threshold complies with the SB 743 statute provisions described at the beginning of the technical memo as well as whether VMT reduction strategies are feasible in the jurisdiction.

Under this option, a separate quantitative VMT threshold would not be set for cumulative conditions, but a qualitative assessment of general plan consistency may still be included depending on whether that analysis is already being conducted for the

purposes of GHG impact analysis. In general, projects should avoid jeopardizing the air quality conformity and GHG reduction performance of the general plan.

As shown in the case studies, different proposed land uses require the use of different significance thresholds to fully identify potential impacts. Staff is recommending the Board endorse the use Option 3 (Set Thresholds Consistent with the General Plan or RTP/SCS Future Year VMT Projections by Jurisdiction or Community Region), specifically by Community Region, with an appropriate efficiency metric for cumulative conditions, and include baseline and basline plus project analysis to help capture some of the effects of disruptive trends to the extent they are already influencing travel behavior. Additionally, EDC must recognize that Option 2 (Set Thresholds Consistent with Lead Agency Air Quality, GHG Reduction, and Engergy Conservation Goals) could be an influence on the significance threshold for a proposed project, such as a project that includes a state highway and therefore Caltrans thresholds would govern an analysis for that facility.

An additional consideration with VMT is the CEQA metric. Many smaller projects may need an EIR due to the inability to mitigate VMT impacts. Example projects that could require an EIR include stand alone hotels and cannabis growing greenhouses as these are generally not local serving commercial uses.

2. Mitigations

VI. TDM Strategies Evaluation

Summary: Transportation demand management (TDM) strategies and their effectiveness for reducing VMT were reviewed and assessed for their relevancy in the EDCTC partner agencies. Given the County's rural/suburban land use context, the following key strategies were identified as the most appropriate:

- Diversifying land use
- Improving active transportation networks
- Implementing traffic calming infrastructure
- Implementing ride-sharing programs
- Increasing transit frequency and reliability
- Encouraging telecommuting and alternative work schedules

Given the rural/suburban context of El Dorado County and the City of Placerville, the strategies above target physical project or transportation network improvements that have higher levels of confidence for VMT reduction potential compared to other employer-based strategies.

Of these strategies, only a few are likely to be effective in a rural or suburban setting such as El Dorado County. To help winnow the list, Fehr & Peers reviewed how land use context could influence each strategy's effectiveness and identified the seven for

more detailed review. These strategies are described in Attachment B (SB 743 Implementation TDM Strategy Assessment TM) and listed below. Please note that disruptive trends, including but not limited to, TNCs, AVs, internet shopping, and micro-transit may affect the future effectiveness of these strategies. 7

1. Increase diversity of land uses – This strategy focuses on the inclusion of mixed uses within projects or in consideration of the surrounding area to minimize vehicle travel in terms of both the number of trips and the length of those trips.

2. Provide pedestrian network improvements – This strategy focuses on creating a pedestrian network within the project and connecting to nearby destinations. Projects in El Dorado County tend to be smaller, so the emphasis of this strategy would likely be the construction of network improvements that connect the project site directly to nearby destinations. Alternatively, implementation could occur through an impact fee program or benefit/assessment district based on local or regional plans such as the EDCTC's Active Transportation Plan.

3. Provide traffic calming measures and low-stress bicycle network improvements – This strategy combines the CAPCOA research focused on traffic calming with new research on providing a low-stress bicycle network. Traffic calming creates networks with low vehicle speeds and volumes that are more conducive to walking and bicycling. Building a low-stress bicycle network produces a similar outcome. Implementation options are similar to strategy 2 above. One potential change in this strategy over time is that e-bikes (and e-scooters) could extend the effective range of travel on the bicycle network, which could enhance the effectiveness of this strategy.

4. Implement car-sharing program – This strategy reduces the need to own a vehicle or reduces the number of vehicles owned by a household by making it convenient to access a shared vehicle for those trips where vehicle use is essential. Note that implementation of this strategy would require regional or local agency implementation and coordination and would not likely be applicable for individual development projects.

5. Increase transit service frequency and speed – This strategy focuses on improving transit service convenience and travel time competitiveness with driving. Given land use density in El Dorado County, this strategy may be limited to traditional commuter transit where trips can be pooled at the start and end locations or require new forms of demand-responsive transit service. The demand-responsive service could be provided as subsidized trips by contracting to private TNCs or Taxi companies. Alternatively, a public transit operator could provide the subsidized service but would need to improve on traditional cost effectiveness by relying on TNC ride-hailing technology, using smaller vehicles sized to demand, and flexible driver employment terms where drivers are paid by trip versus by hour. Note that implementation of this strategy would require regional or local agency implementation, substantial changes to current transit practices, and would not likely be applicable for individual development projects.

6. Encourage telecommuting and alternative work schedules – This strategy relies on effective internet access and speeds to individual project sites/buildings to provide the opportunity for telecommuting. The effectiveness of the strategy depends on the ultimate building tenants and this should be a factor in considering the potential VMT reduction.

7. Provide ride-sharing programs – This strategy focuses on encouraging carpooling and vanpooling by project site/building tenants and has similar limitations as strategy 6 above.

Because of the limitations noted above, strategies 1, 2, 3, 6, and 7 are initially considered the highest priorities for individual land use project mitigation subject to review and discussion with the project team and advisory committee.

Transportation staff has been participating in SACOG's Local Agency Working Group discussions on SB 743 Implementation tools. Mitigation measures for VMT impacts is an evolving area of study statewide and regionally. Potential regional mitigation measures can be included in the El Dorado County toolbox once the research and implementation has occurred.

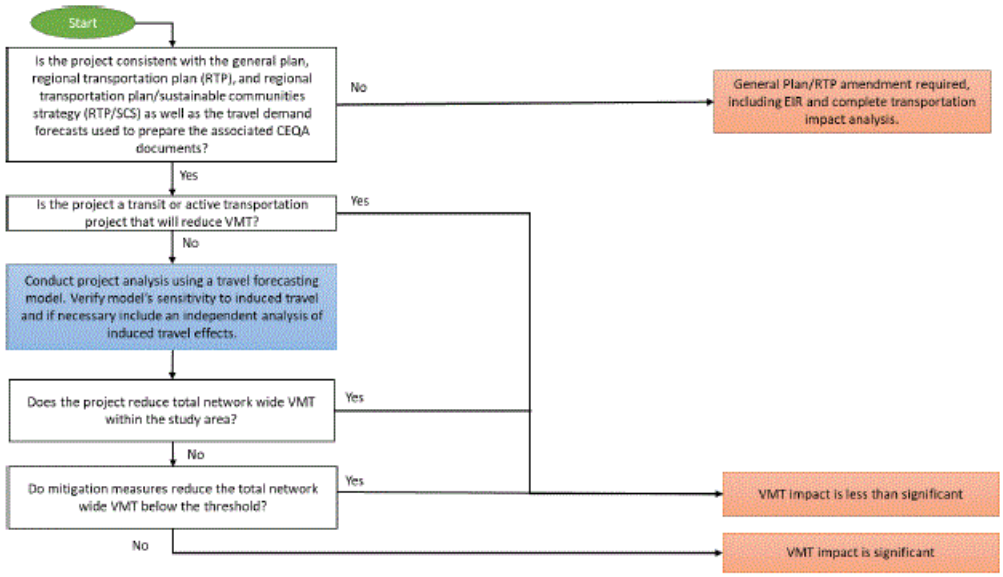
At this time, staff is recommending the use of the mitigation measures above, as applicable, and potentially incorporating new mitigation measures as they become appropriate for use in El Dorado County. Active transportation, transit, and affordable housing projects are presumed to not have an impact under specific circumstances. Mitigation measures that accommodate these types of projects are encouraged as they are consistent with the legislative intent of SB 743.

Transportation Projects Methodology

The Technical Guidance is clear that transportation projects require a different analysis than land use projects. The flow chart for a transportation project, from the Case Study Evaluations in the proposed implementation plan, is shown below.

The Guidelines for California Environmental Quality Act, as amended December 1, 2019 states in Section 15064.3(b)(2) Determining the Significance of Transportation Impacts, Criteria for Analyzing Transportation Impacts – Transportation Projects, "Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152."

Figure 3: VMT Analysis Process for Transportation Projects



In general, transit and active transportation projects may be presumed to have a less than significant VMT impact. For road capacity expansion projects, a complete VMT impact analysis is likely required. This analysis will start with the use of a travel forecasting model such as the El Dorado County Travel Demand Model. Depending on the sensitivity of the forecasting model to induced travel effects, and additional analysis that exclusively focuses on induced travel effects may be required.

Staff recommends using the El Dorado County Travel Demand Model to provide the analysis for transportation projects. Any increase in VMT by the project under baseline conditions or cumulative conditions would be considered a transportation impact under CEQA. Staff also recommends the County use the VMT analysis process flow chart for transportation projects.

RECOMMENDATION

Transportation is recommending the Board receive the workshop information on Senate Bill (SB) 743 and provide direction on the County's application of the significance thresholds and potential mitigation measures as outlined above.

CONTACT

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