



**COUNTY OF SAN MATEO**  
Inter-Departmental Correspondence

Department of Public Works

**DATE:** September 23, 2020

**TO:** Members, Board of Supervisors  
via the County Manager

**FROM:** James C. Porter, Director of Public Works 

**SUBJECT:** Change to Vehicle Miles Traveled as Metric to Determine  
Transportation Impacts under CEQA Analysis

On September 27, 2013, Governor Jerry Brown signed California Senate Bill 743 (SB 743) into law. The goal of this legislation to reform transportation impact analysis under the California Environmental Quality Act (CEQA). SB 743 aligns transportation impact analysis with other statewide goals pertaining to infill development, reduction of greenhouse gases (GHG), and promotion of public transit and active transportation. All California agencies are required by state law to be consistent with this change by July 1, 2020.

Prior to implementation of SB 743, the County of San Mateo, along with many other lead agencies, used vehicle Level of Service (LOS) analysis to determine transportation-related environmental impacts under CEQA. LOS measures vehicular delay, or the additional driving time encountered by drivers during the most congested times of travel. SB 743 prohibits the use of LOS to measure impacts under CEQA and requires agencies to adopt alternative measures of such impacts. The method now being used by nearly all California cities and counties including San Mateo County to measure development related environmental impacts under CEQA is to assess Vehicle Miles Traveled, or VMT.

VMT is the product of the number trips a project is expected to generate and the average length of those trips. CEQA analysis will now evaluate pre and post project VMT to determine impacts of a proposed project. VMT is an indicator of total GHG production, tailpipe emissions, and can serve as a metric of regional congestion.

VMT is not a new measure. It has been used in other areas of CEQA analysis for characterizing a project's GHG emissions or energy impacts. LOS can still be used to

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measure impacts related to vehicular delay but changes in LOS no longer constitute a significant environmental impact under CEQA. Both methods compare the observed metrics before a project and the estimated metrics after implementation of a project. However, VMT captures a project's relationship to GHG emissions better than LOS. LOS could still be reviewed during the project phase for local impacts to traffic congestion and projects can be conditioned to address LOS changes.

There are two parallel efforts currently underway to formalize the use of VMT in San Mateo County:

**First:** The City/County Association of Governments of San Mateo County (C/CAG) is currently working on a countywide VMT estimation and screening tool for use by San Mateo County cities and the County to estimate future VMT of new projects and whether they have a significant impact. C/CAG has engaged Fehr and Peers, a transportation consulting firm that has been a leader in the development of VMT estimation and screening tools for this effort. Fehr and Peers has developed a similar tool for the Valley Transportation Authority and the jurisdictions of Santa Clara County that is currently in use.

**Second:** The County must develop and adopt its own VMT thresholds of significance (the level at which the impacts of a project are deemed significant under CEQA) and mitigation measures for unincorporated San Mateo County. These metrics and projected baseline data for existing vehicle miles traveled for unincorporated County jurisdiction areas will then be used in the C/CAG countywide estimation and screening tool. The County may set its own analysis metrics, methods, and thresholds based upon guidelines set forth by the State Office of Planning and Research (OPR). The Department of Public Works, in consultation with the Planning and Building Department, retained Fehr and Peers to complete a white paper to guide the County through the decision-making process to set these methods, metrics, and thresholds.

As the unincorporated areas of San Mateo County are not homogenous and each has unique characteristics, Public Works and Planning and Building staff are working with Fehr and Peers to examine which thresholds are most appropriate for each unincorporated area and how the thresholds of significance coordinate with neighboring jurisdictions. In addition, staff continues to examine which mitigation measures are most appropriate for the County. The County is currently waiting for the C/CAG tool to be developed with latest VMT data for countywide use.

In lieu of final thresholds still under development, staff is using OPR's recommendations as modified and described in Attachment A as an interim measure. Once the final thresholds are developed, staff will present the information for Board consideration and approval.

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CC: Justin Mates, Deputy County Manager  
Steve Monowitz, Director of Planning and Building  
Khoa Vo, Deputy Director Roads Division  
Diana Shu, Senior Civil Engineer  
Harry Yip, Associate Civil Engineer

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## **Attachment A –Staff Interpretation of State of California Governor’s Office of Planning and Research Technical Advisory on Evaluating Transportation Impacts in CEQA**

The County of San Mateo is in the process of developing new thresholds of significance to identify transportation-related impacts under the California Environmental Quality Act (CEQA) as required by Senate Bill (SB) 743 for the unincorporated areas within the County of San Mateo. This document summarizes the *interim* changes to the significance criteria from Level of Service (LOS) to Vehicle Miles Traveled (VMT), as recommended by the State of California Governor’s Office of Planning and Research’s (OPR) December 2018 Technical Advisory [https://opr.ca.gov/docs/20190122-743\\_Technical\\_Advisory.pdf](https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf), to achieve compliance with SB 743.

Since the unincorporated areas of the County of San Mateo have many rural areas that are different in nature from the urban/suburban areas, different criteria and thresholds are necessary to adequately assess impacts.

### **VMT Thresholds and Baselines**

For analysis of transportation-related impacts under CEQA, if a project generates VMT above the defined threshold, it is deemed to have a significant impact. The thresholds set are based on baseline VMT, which is also the existing VMT value. The calculation for baseline VMT is done by C/CAG using the VTA Travel Demand Model and existing travel patterns. The County has discretion to set its significance threshold based on the baseline or a reduction of the baseline VMT. For residential projects, OPR recommends using significance thresholds that compares a project’s home-based trip VMT per resident to the baseline home-based trip VMT per resident. For office projects, OPR recommends using significance thresholds that involve comparing a project’s home-based VMT per worker to the home-based baseline VMT per worker. The maps below show the baseline VMT per worker and resident for San Mateo County to illustrate differences by geographic areas, called Transportation Analysis Zones (TAZ). For other projects, OPR recommends comparing the total VMT generated by a project to the total baseline.

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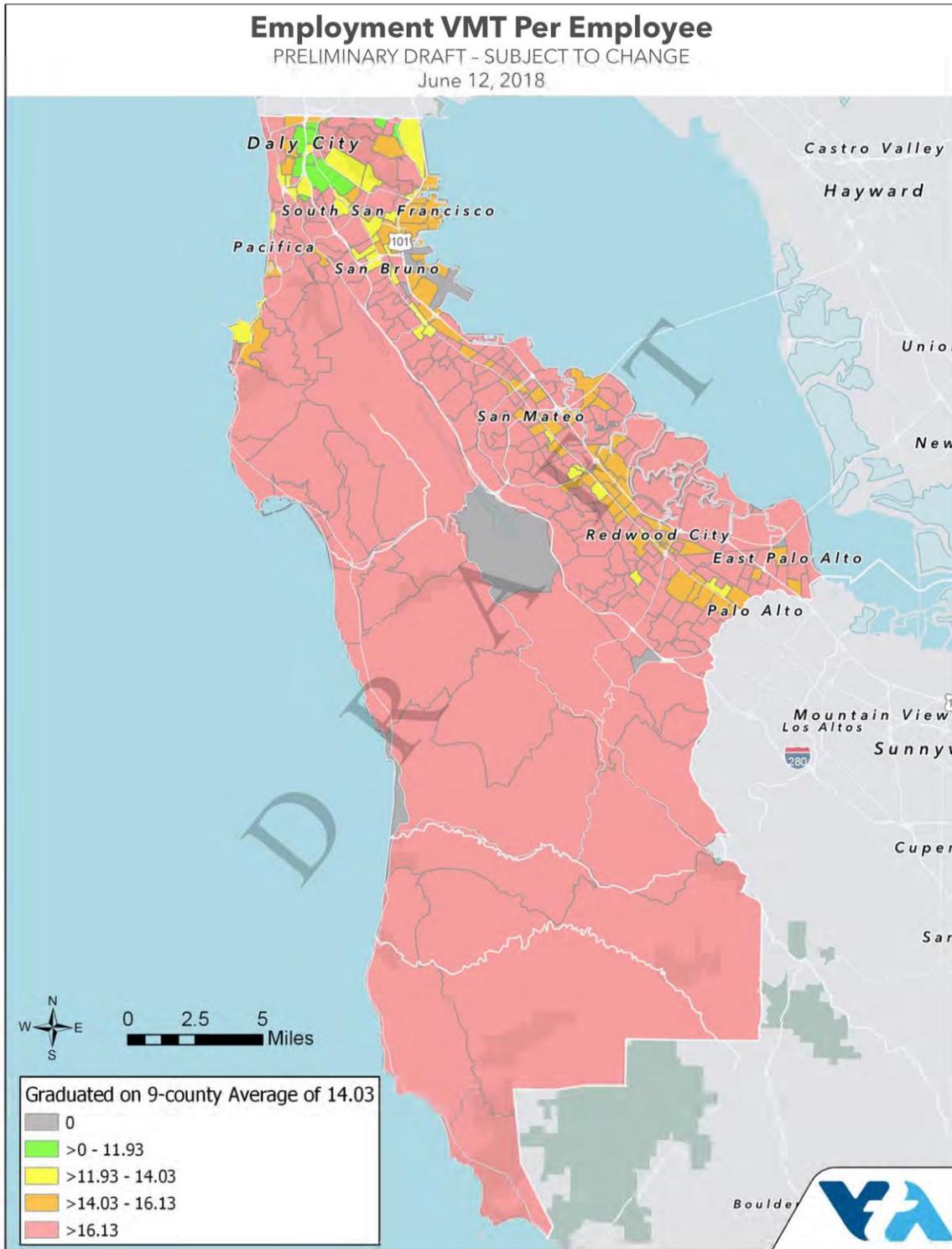


Figure 1: Baseline VMT per worker per geographic area. (Note: This is for illustration purposes only. San Mateo County average is 16.65)

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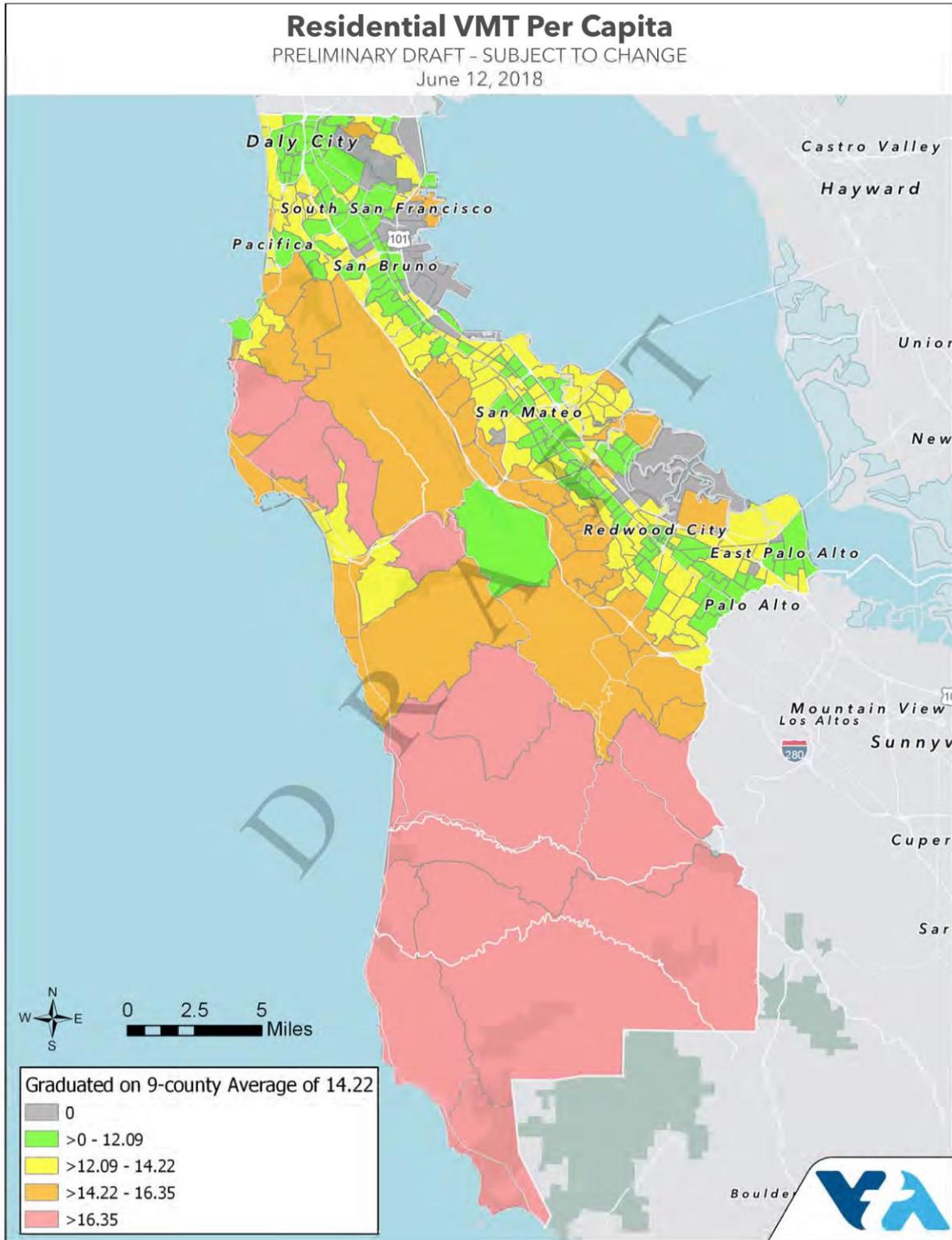


Figure 2 Baseline: VMT per worker per geographic area. (Note: This is for illustration purposes only. San Mateo County average is 13.60)

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**For Urban/Suburban Areas:**

Urban/suburban areas include the following areas: Harbor/Industrial, Burlingame Hills, Broadmoor, unincorporated Colma, El Granada/Miramar, West Menlo Park, Menlo Oaks, Kensington Square, North Fair Oaks, Sequoia Tract, Palomar Park, Emerald Lake Hills, Devonshire, San Mateo Highlands, and Country Club Park. All other unincorporated areas are considered rural areas.

Criteria	Office of Planning and Research (OPR) Recommended Thresholds	Staff Comment
<b>Screening Criteria – Projects that meet any of these criteria are exempt from further CEQA transportation impact analysis as OPR deems these projects not likely to significantly increase VMT</b>		
Transit Priority Area	<ul style="list-style-type: none"> <li>• ½ mile from high quality transit<sup>1</sup> stop/rail station; and</li> <li>• Floor area ratio &gt; 0.75; and</li> <li>• Does not replace affordable residential units with a smaller number of moderate/high income housing units; and</li> <li>• Does not provide more parking than required; and</li> <li>• Consistent with Sustainable Communities Strategy</li> </ul> <p><sup>1</sup> High quality transit is a fixed route bus service with service intervals no longer than 15 minutes during peak commute hours</p>	<p>Projects that meet all the listed thresholds are in a Transit Priority Area and are not expected to create a significant VMT impact.</p> <p><i>Example: An apartment complex with minimum parking next to a BART Station.</i></p>
Affordable Housing	100% affordable housing (as defined by the Department of Housing for extremely low-, very low-, low-, or moderate-income levels) in infill locations	Projects that generate 100% affordable housing in infill areas typically generate lower VMT than market-rate housing.
Small Projects	<ul style="list-style-type: none"> <li>• Generate or attract fewer than 110 trips per day; and</li> <li>• Consistent with General Plan; and</li> <li>• No substantial evidence indicating a potentially significant level of VMT would result</li> </ul>	<p>OPR analogized these small projects to those categorically exempt from CEQA pursuant to the additions to existing facilities exemption, which typically do not have a significant impact.</p> <p><i>Example: New single-family home.</i></p>
Existing Low VMT Area	Residential and office projects located in a Transportation Analysis Zone (TAZ) where the baseline per-capita or per-employee home-based-work trip is below the County Average	<p>OPR assumes projects in existing low VMT areas will likely result in similarly low levels of VMT.</p> <p><i>Example: Building an apartment complex in North Fair Oaks</i></p>

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Local and Regional Serving Retail	< 50,000 square feet	<p>OPR assumes local serving retail typically does not create more trips but rather tends to redistribute and shorten existing trips, reducing VMT, Including Regional serving retail located along transit corridors.</p> <p><i>Example: A local supermarket that would capture shoppers who previously made trips further away.</i></p>						
<b>Significance Criteria – Projects that exceed the VMT thresholds based on project type may have a potentially significant transportation impact requiring mitigation.</b>								
Baseline	<p>County Average:</p> <table border="1" data-bbox="370 783 964 961"> <thead> <tr> <th data-bbox="375 783 639 821">Project Type</th> <th data-bbox="644 783 959 821">Baseline VMT</th> </tr> </thead> <tbody> <tr> <td data-bbox="375 827 639 890">Residential</td> <td data-bbox="644 827 959 890">13.60 Home-based trip VMT per resident</td> </tr> <tr> <td data-bbox="375 896 639 959">Office</td> <td data-bbox="644 896 959 959">16.65 Home-based work trip VMT per worker</td> </tr> </tbody> </table>	Project Type	Baseline VMT	Residential	13.60 Home-based trip VMT per resident	Office	16.65 Home-based work trip VMT per worker	<p>OPR allows a jurisdiction to choose its baseline between City Average, County Average, and Regional Average. County will use the County Average.</p>
Project Type	Baseline VMT							
Residential	13.60 Home-based trip VMT per resident							
Office	16.65 Home-based work trip VMT per worker							
Residential Projects	15% below baseline for home-based work trip per capita by residence	<p><i>Example: A condo project that generates 16 Home-based work trip VMT per resident will trigger an impact. Conversely, a similar project that generates 10 Home-based work trip VMT per resident will NOT trigger an impact.</i></p>						
Office Projects	15% below baseline for home-based work trip per capita by workplace	<p><i>Example: An office project that generates 16.0 Home-based work trip VMT per worker will trigger an impact. Conversely, a similar project that generates 10 Home-based work trip VMT per worker will NOT trigger an impact.</i></p>						
Retail Projects	0 net increase in Total VMT	<p><i>Example: a big box retail store that generates additional VMT from outside the County.</i></p>						

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<p>Transportation Projects</p>	<p>0 net increase in Total VMT</p>	<p><i>Example: Roadway expansion where 1 travel lane is added may trigger a significant impact and will require mitigation since it will likely cause an increase in VMT. Conversely, a project that converts an existing lane into a bicycle lane will NOT trigger an impact.</i></p>
<p>Other Projects</p>	<p>County will review on a case by case basis.</p>	<p>No guidance has been published for this category. This includes schools, hospitals, warehouses, recreational facilities, hotels, churches, industrial, large retail/office etc.</p>
<p><b>Mitigation Options</b></p>		

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<p>Examples of Mitigation Measures and Project Alternatives</p>	<p>Mitigation measures shall conform to OPR’s December 2018 Technical Guidance.</p> <p>Potential measures to reduce VMT include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Improve or increase access to transit.</li> <li>• Increase access to common goods and services, such as groceries, schools, and daycare.</li> <li>• Incorporate affordable housing into the project.</li> <li>• Incorporate neighborhood electric vehicle network.</li> <li>• Orient the project toward transit, bicycle and pedestrian facilities.</li> <li>• Improve pedestrian or bicycle networks, or transit service.</li> <li>• Provide traffic calming.</li> <li>• Provide bicycle parking.</li> <li>• Limit or eliminate parking supply.</li> <li>• Unbundle parking costs.</li> <li>• Provide parking cash-out programs.</li> <li>• Implement roadway pricing.</li> <li>• Implement or provide access to a commute reduction program.</li> <li>• Provide car-sharing, bike sharing, and ride-sharing programs.</li> <li>• Provide transit passes.</li> <li>• Shifting single occupancy vehicle trips to carpooling or vanpooling, for example providing ridematching services.</li> <li>• Charge employees for parking</li> <li>• Providing telework options.</li> <li>• Providing incentives or subsidies that increase the use of modes other than single-occupancy vehicle.</li> <li>• Providing on-site amenities at places of work, such as priority parking for carpools and vanpools, secure bike parking, and showers and locker rooms.</li> <li>• Providing employee transportation coordinators at employment sites.</li> <li>• Providing a guaranteed ride home service to users of non-auto modes.</li> </ul> <p>Examples of project alternatives that may reduce VMT include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• Locate the project in an area of the region that already exhibits low VMT.</li> <li>• Locate the project near transit.</li> <li>• Increase project density.</li> <li>• Increase the mix of uses within the project or within the project’s surroundings.</li> <li>• Increase connectivity and/or intersection density on the project site.</li> <li>• Deploy management strategies (e.g., pricing, vehicle occupancy requirements) on roadways or roadway lanes</li> </ul> <p>Lastly, because VMT is largely a regional impact, regional VMT-reduction programs may be an appropriate form of mitigation. In lieu fees have been found to be valid mitigation where there is both a commitment to pay fees and evidence that mitigation will occur</p>
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**For Rural Areas:**

OPR notes that rural areas have fewer opportunities to reduce VMT and significance thresholds can be set on a case-by-case basis based on available data.