



DATE: June 18, 2020

TO: Members of the VMT Technical Advisory Committee (TAC)

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SUBJECT: Technical Advisory Committee Discussion of Petaluma's Transition to Vehicle-Miles Traveled
(Senate Bill 743)

RECOMMENDATION

It is recommended that the Technical Advisory Committee (TAC) consider the Memorandum prepared by Fehr & Peers: Summary of Key Decisions for SB 743 Implementation in the City of Petaluma (Attachment 1), and provide input on the following specific considerations to inform the development of Petaluma's Vehicle-Miles Traveled (VMT) program:

- Metrics/Methodology – What VMT metrics should be analyzed and how should VMT be calculated?
- Thresholds – Does the TAC find OPR's recommended 15% reduction in VMT per capita an appropriate threshold for Petaluma?
- Screening – What types of projects do not need VMT analysis?
- Mitigation Options – What options should be considered to mitigate significant VMT impacts?

BACKGROUND

Historically, the City of Petaluma has used level of service (LOS) methodology to assess traffic operations and analyze environmental impacts for projects in accordance with the California Environmental Quality Act (CEQA). In 2013, Senate Bill (SB) 743 established new legislation mandating a major change to the CEQA guidelines (Section 15064.3); replacing the LOS metric with a vehicle-miles traveled (VMT) metric. The shift from LOS to VMT focuses on regional traffic patterns and reducing greenhouse gas (GHG) emissions, rather than vehicle delays on local roadway networks.

Reliance on a VMT metric for evaluating environmental impacts is intended to:

- Streamline CEQA review for projects that improve pedestrian, bicycle and transit facilities.
- Encourage residential, commercial, and mixed-use infill projects close to transit.

- Shift the focus of mitigation measures from improvements that benefit vehicles to improvements that enhance access, safety and usability for pedestrian, bicyclists and transit users. and
- Promote policies that:
 - Minimize GHG emissions from transportation by shifting travel modes away from single occupancy vehicles.
 - Encourage development of safe walkable and pedestrian scale communities.
 - Enhance sustainability and resilience by reducing vehicle trips and length.
 - Discourage urban/suburban sprawl

Pursuant to SB 743, lead agencies in California are expected to adopt VMT thresholds by July 1, 2020. Although adoption of VMT thresholds in Petaluma will not occur prior to July 1, 2020, the City is actively working to adopt local VMT thresholds and establish Petaluma’s VMT program as soon as possible. In the interim, while a Petaluma specific VMT program is being developed, the City of Petaluma has been consulting the recommended screening methodology and thresholds set forth in Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (dated December 2018 and available on the City’s VMT webpage at: <https://cityofpetaluma.org/vmt/>).

The City of Petaluma is working with traffic consulting firm Fehr & Peers to assist the City with the transition from LOS to VMT including forecasting using an appropriate travel demand model. As noted by the *Technical Advisory*, a travel demand model will likely need to be used in the LOS to VMT transition process. During 2019, the regional transportation forecasting model maintained by Sonoma County Regional Transportation Authority (SCTA) was being updated and calibrated to support VMT; these updates are also being performed by Fehr & Peers. Although the SCTA VMT model continues to be refined, there is now sufficient information available to proceed with developing Petaluma specific VMT parameters within the framework of the regional SCTA forecasting model.

As part of the public review and participation process, the City has formed the TAC comprised of one self-appointed liaison from each of the following groups: the City Council, Planning Commission, Pedestrian and Bicycle Advisory Committee, Climate Action Commission, and Transit Advisory Committee. City staff members serving on the VMT TAC include the City Engineer, Transit Manager, and Traffic Engineer. Liaisons from outside agencies include staff members from SCTA, Permit Sonoma, and Caltrans.

The VMT TAC is tasked with providing feedback and input on draft materials prepared to support Petaluma’s LOS to VMT transition. This first meeting is intended to provide the VMT TAC and the public with an overview of the key decision points and the opportunity to discuss various options and provide feedback to shape the City’s VMT program.

DISCUSSION

The VMT TAC meetings provide an opportunity to receive information, consider, and discuss various key decisions that ultimately must be made by the Petaluma City Council in order to

establish Petaluma's VMT program. Attachment 1 contains a Memorandum from Fehr & Peers summarizing the key decisions for SB 743 implementation in the City of Petaluma.

At the June 18, 2020 VMT TAC meeting city staff and the consultant team will facilitate a discussion of key considerations that will primarily focus on the following aspects of the VMT program. Depending on input received from TAC members and the public, other aspects may also be discussed.

Metrics/Methods

There are a number of different metrics that can be used to quantify VMT, each with benefits and limitations. The City must develop standardized metrics and methodology for quantifying VMT for development projects (e.g. a subdivision), plan level projects (e.g. General Plan or Specific Plan) and transportation related projects (e.g. a new crosstown connector). OPR has identified several possible options for measuring VMT including establishing efficiency metrics. Attachment 1, Table 1 contains an illustration of common VMT metrics. Attachment 1 Exhibit 1, identifies Fehr & Peers' initial recommendations for Petaluma metrics including the following:

1. Total VMT
2. Total VMT per service population
3. Home-based VMT per resident
4. Home-based work VMT per employee

Estimates of these values from the SCTA model are presented in Table 2 of Attachment 1. OPR generally suggests using the home-based work VMT values for residential and office (employment) projects, and total VMT for retail projects. OPR has not recommended thresholds for other project types (industrial, distribution center, public facilities, wine tasting, etc.), and the City could (1) leverage thresholds for other project types, (2) adopt a general use threshold based on substantial evidence, or (3) develop thresholds on a case-by-case basis based on substantial evidence.

There are at least three forecasting models that Petaluma could potentially rely upon for standardizing the VMT review process for transportation projects: 1) City of Petaluma Model, or 2) SCTA Model, or 3) MTC Model. Under currently accepted methodology, the City generally uses the City of Petaluma Model or the SCTA model, although the City of Petaluma model has not been updated in recent years as the City is transitioning to the SCTA model. The Metropolitan Transportation Commission (MTC) model has relevance in the context of the nine-county Bay Area and informs other regional planning documents (Plan Bay Area).

As summarized in Attachment 1 and depicted in Exhibit B thereto, the recently calibrated SCTA forecasting model is being recommended as the preferred model to estimate VMT. The benefits of the SCTA model are that Petaluma is already a member agency, it has been recently calibrated and further refinements are under way, it is supported by big data (which captures travel behavior patterns over a much longer term and a variety of conditions), and is routinely maintained and updated for land use and transportation network information in the City of Petaluma and for other agencies throughout Sonoma County. This would be in contrast to the City model, which has not

been calibrated in recent years and would require City staff to update and maintain the model on an ongoing basis.

Methodology must also guide the determination of whether a project requires a qualitative or quantitative assessment of VMT. This determination is typically made as part of the completeness review process for development projects and through the CEQA process for plan level or transportation type projects.

TAC Metric/Method Considerations:

- Are the OPR recommendations for VMT metrics appropriate for Petaluma?
- Is use of the SCTA model the most appropriate travel forecasting model for the City of Petaluma to rely upon in producing VMT metrics and thresholds?

Thresholds of Significance

The City of Petaluma has discretion to set its own VMT impact thresholds to assess level of significance under CEQA for projects. In selecting an appropriate threshold, the City must consider state guidance from OPR, which is tied to the Air Resources Board (ARB) projections to achieve targeted statewide greenhouse gas reduction goals. The City has two primary options for selecting a VMT threshold: 1) adopt a threshold recommended by another public agency (such as OPR), or 2) adopt a Petaluma-specific VMT threshold. Similar to the City's current requirement for LOS, VMT analysis would need to consider VMT impacts under baseline conditions (existing conditions) and in the future under cumulative conditions (planned regional growth).

OPR's residential VMT threshold generally requires land use projects to achieve a 15 percent reduction below the city or regional (nine-county MTC region) average; the employment-based (i.e. office) threshold generally requires a land use project to achieve a 15 percent reduction below the regional (nine-county MTC region) average. The most recent ARB analysis indicates that VMT thresholds would need to achieve a 16.8 percent reduction for automobiles statewide based on 2018 levels to reach the state's GHG reduction goals. The targeted reduction levels set forth by outside public agencies will change over time depending on statewide forecasts of population, travel, and economic conditions.

The challenge for Petaluma is that VMT is higher than the regional average and accomplishing a 15 percent or 16.8 percent reduction will require mitigation strategies and implementation not previously attempted (Table 2: Base VMT Threshold Options, in Attachment 1). People living in Petaluma commute relatively long distances by car to regional employment centers including Santa Rosa and San Francisco. Accomplishing a VMT reduction that is 15 percent below the regional average may not be feasible, even with mitigation, especially for new residential projects located in proximity to city limits (which are generally areas with relatively higher VMT), such as areas on the east side of town that have existing residential land use designations.

Petaluma's VMT per service population is preliminarily estimated to be 33.1, which is above the countywide average of 28.8 by approximately 14.5%. As such, an approximately 30% reduction

would be required to meet a countywide reduction target (15% below existing). This may be infeasible given the city's land use and transportation patterns, and the dynamics of the regional economy and markets. Please note that the above metrics are preliminary based on the SCTA model, which continues to be refined, with a final model anticipated for use in late June 2020.

While setting a VMT threshold lower than the OPR recommended 15 percent, is likely defensible, so long as the threshold is supported by substantial evidence, OPRs recommended threshold is based on a body of evidence substantiating its appropriateness. Should the City choose to select a threshold different than OPR's, it will need to be supported by a well reasoned justification accompanied by substantial evidence.

One approach that could be considered for a program level analysis (General Plan or Specific Plan) is based on identifying the reduction in VMT rates that would occur on a citywide basis. This would rely upon the SCTA travel model to compare existing VMT rates for Petaluma to future year 2040 VMT rates. A development project would be found to have a significant impact if it did not achieve a 15% reduction below the citywide average (either for service population, resident, or worker, depending on the project type) by 2040. This would result in a less onerous target and may be more reasonable for Petaluma.

Transportation improvement project such as road widening, road diets, bike lanes, and new signals would be evaluated based on VMT generation. A net decrease or no change in VMT would be considered a less than significant impact. A net increase would be considered a significant impact.

VMT TAC Consideration:

- Should the City rely upon OPR or ARB's identified thresholds, or adopt Petaluma specific thresholds?
- What are appropriate VMT Thresholds for the City of Petaluma taking into consideration the City's climate emergency declaration, commitment to sustainability and resiliency, need for housing and physical location within the region?
- How might VMT thresholds be considered in the context of the forthcoming General Plan update?
- Under what circumstances might the City consider adopting a statement of overriding consideration for an exceedance to VMT?

Screening Criteria

Under the LOS methodology, the City of Petaluma applies a screening mechanism for smaller projects based on trip generation. If a project would normally generate fewer than 50 peak hour trips (or 500 daily trips), then the project would not typically be subject to a detailed transportation analysis to assess level of service since it can be seen with certainty that the project would not result in a LOS impact.

Similarly, screening tools are available for VMT analyses and preclude projects that meet screening criteria from having to prepare a detailed VMT analysis. OPR's *Technical Advisory* suggests applying screening for small projects (generally 10,000 square feet or less for residential project, 15 dwelling units or less, retail of 50,000 square feet or less, or projects that generate fewer than 110 daily trips), residential and office projects located in low VMT areas (which are identified in the SCTA travel demand model currently in draft form), affordable housing development, and transportation projects that would not increase roadway capacity. Projects that meet screening criteria established by the City of Petaluma would only require a qualitative discussion in the CEQA document. Typically, this is most appropriate for projects that are consistent with the General Plan and do not increase VMT, provide public benefits such as affordable housing, and/or reduce VMT. Additionally, projects that are located within ½ mile of a major transit stop or high-quality transit corridor could also qualify to screen out of a VMT analysis. In Petaluma this includes the Downtown SMART station, the planned North SMART station (Corona Station), and bus stops with 15 minutes headway during the peak hour.

OPR has suggested exceptions to screening criteria that include: a floor area ratio (FAR) of less than 0.75, providing more parking than required by the code, inconsistency with the regional sustainability community strategy (Plan Bay Area), and or resulting in removal or replacement of affordable residential units. Projects that potentially conflict with exceptions, that would otherwise screen out, should be subject to a quantitative VMT analysis.

TAC Screening Considerations:

- Are the OPR recommended screening criteria and exceptions appropriate for application in the City of Petaluma?
- Should screening be allowed for projects that offer a clear and direct public benefit to reduce citywide VMT rates?
- Are there other exceptions to the screening criteria that should be considered?

Mitigation Options

Projects that result in VMT impacts would be subject to mitigation through transportation demand management (TDM) programs or project design/operations that support fewer and shorter vehicle trips. Program based VMT mitigation includes impact fees, mitigation exchanges, or mitigation banks. Project level mitigation may be feasible by incorporating a mix of land uses, altering the project density, including bicycle and pedestrian improvements, or by other means. However, project level mitigation may not be feasible, especially for single use projects, such as a residential subdivision. Furthermore, the City's land use and municipal code establishes allowed uses and maximum densities and may preclude mixed-use development or higher densities without legislative approval. Additionally, project operations proposed by developers are influenced by market conditions, which have seen a trend away from retail as e-commerce has continued to expand.

Exhibit E: VMT Reduction Strategy Assessment Memorandum provides a menu of mitigation measures that the City may consider as part of the VMT mitigation program. The effectiveness of

various TDM programs range widely depending on travel behavior and preferences, the level of investment in alternative transportation modes, project location, and the quality, accessibility, and safety of multimodal infrastructure. Due to this variability, mitigating a VMT impact using TDM requires rigorous and ongoing monitoring that measures VMT performance over time. Monitoring requires significant city staff and applicant resources. Additionally, reliance upon a project by project TDM approach would likely result in an increased number of projects that have VMT impact that remain significant and unavoidable, even after implementation of all feasible mitigation measures.

One possible option for the City to consider is a citywide VMT mitigation program, which would be structured in a similar fashion as the existing transportation impact fee program, which collects fees from development projects to fund identified improvements to achieve level of service targets. A VMT impact fee program could be developed and levied upon all projects based on VMT contribution. Any VMT fee program adopted by the City would have to demonstrate that fees collected would fund improvements that realize VMT reductions in-line with Petaluma's VMT reduction objectives.

VMT TAC Consideration:

- Does the list of VMT measures set forth in Exhibit E capture all possible VMT reduction opportunities?
- Is there a preference to develop a citywide VMT program, rather than require mitigation on a project by project basis?
- How might the Transit Infrastructure inventory recently completed and the update to the City's bike and pedestrian plan, in process, be integrated into the VMT mitigation program?

Case Studies

In an effort to understand the implications of how key decision might affect Petaluma's VMT program, several development projects from the past 5 years have been identified as case studies. These are included in Table 3 of Attachment 1. These case studies may be useful in considering the various VMT options and how VMT policy decisions could affect required VMT analyses.

Other Considerations related to the City's VMT Program

The first TAC meeting is intended to focus on metrics and methodology and if time allows to initiate the discussion on thresholds, screening and mitigation to inform Petaluma's VMT program. In addition to the above described VMT program components, there are other considerations that relate to the City's VMT program and warrant consideration as part of the City's transition from LOS to VMT. The VMT TAC is not being asked to provide specific input on these other considerations as part of the first VMT TAC meeting. Rather, the following additional considerations are being presented to the TAC for context purposes as they relate to the City's VMT program and may also be discussed or otherwise considered as the City's VMT program is being developed.

Retaining LOS – The City will need to consider how to treat LOS outside of the CEQA process. For CEQA purposes it is clear that LOS can no longer be used to assess environmental impacts. LOS has been an effective measure of the street network performance and in identifying operational deficiencies within the City’s transportation network. A hybrid approach to transportation planning that considers both LOS (for informational and General Plan consistency purposes) and VMT (for CEQA) may still be appropriate or reliance upon VMT alone may prove to be sufficient. LOS analysis could become more focused in terms of geographic scope and number of study scenarios with a goal of answering the operational questions most pertinent to City decision makers and the public.

Some city’s such as San Francisco, Oakland and Pasadena have abandoned LOS altogether, whereas others, such as San Jose have shifted to a dual system where LOS continues to be used for local transportation planning, while VMT is used for CEQA analyses. The VMT TAC should consider and weigh in on eliminating LOS entirely, retaining LOS for planning purposes (consistency with the General Plan), or shifting to a more limited form of LOS analysis. In the event LOS is retained, further consideration should be given to how LOS will be measured.

Traffic Impact Fees – The City currently collects a [traffic impact fee](#) for new development based on a per unit or per square foot basis. Traffic development impact fees are set forth in the City’s [Municipal Code, Chapter 19.24](#) and are intended to mitigate LOS-based transportation impacts caused by development. Fees finance public facility improvements and ensure that each development pay its fair share of the construction and acquisition cost for public improvements. Fees collected are intended to fund major transportation projects and improvements identified in the City’s Capital Improvement Plan. Some of these improvements require funding that exceed the amount that can be collected through impact fees alone.

An alternative approach to determining impact fees could be based on VMT rather than on a per unit or per square footage basis. Applying a VMT fee would better capture each project’s proportional share of roadway infrastructure usage (e.g. project that generate fewer VMT or reduce trip lengths would be subject to a lower VMT fee).

Traffic Impact Studies – The City generally requires Traffic Impact Studies (TIS) for development projects that generate more than 50 peak hour trips. The City has developed Draft TIS Guidelines which have been used to ensure consistency of methodology, screening, and scope for traffic analyses. The Draft TIS Guidelines rely upon LOS and will need to be updated with appropriate VMT metrics. LOS analysis would not be required for CEQA purposes but nonetheless may be desired for operational purposes to inform conditions of approval.

General Plan Update/Amendments – The City is currently embarking upon a multi-year process to update the General Plan. VMTs will be an integral part of the update to the General Plan and may result in land use, policies and program changes not previously contemplated. The CEQA analysis prepared to assess environmental impacts of the forthcoming General Plan Update, presumed to be an Environmental Impact Report, provides opportunities for tiering and streamlining through application of CEQA Guidelines Section 15183. This process may also provide the framework for developers to contribute to an impact fee program (mitigation) based on VMT reductions. Through the General Plan update, a long range and comprehensive approach

to VMT planning will be adopted. In the interim, the City may consider adopting standalone VMT thresholds or introducing VMT policies to establish a VMT program. One policy in particular that may warrant specific consideration in the context of the VMT program is:

Policy 5-P-10: Maintain an intersection level of service standard for motor vehicle circulation that ensures efficient traffic flow and supports multi-modal mobility goals. LOS should be maintained at Level D or better for motor vehicles due to traffic from any development project.

Exhibit F provides an initial list of identified policies and programs related to transportation from various City of Petaluma planning documents. There may be other policies identified by the TAC or the public that also warrant particular consideration.

CEQA- The adoption of VMT thresholds is not a project under CEQA and does not require environmental review. The public process that the City is undertaking as part of the VMT program, including input received from the TAC and the public, provides an opportunity for participation and disclosure, which are fundamental to the CEQA mandate. General Plan amendments such as policy changes, including policies or program to specifically address VMT would be considered a discretionary action and would be subject to CEQA review.

VMT TAC PROCESS

The role of the TAC is to consider key decisions and provide input and feedback to inform the VMT program. At the first meeting, the TAC will be provided with an overview of the key decisions that the City will have to consider and will be asked to provide input based on each member's unique expertise as staff to various agencies and/or liaisons to committees, commissions, and to the City Council. VMT TAC members also have the important role of reporting back to their groups on the VMT TAC process.

There is much to consider at the first VMT TAC meeting. This staff report and Attachment 1 hereto provides a summary of the primary decision points and aims to focus the discussion on the building blocks of the City's VMT program; Metrics/Methods, Thresholds, Screening, and Mitigation. There are several lengthy attachments, as well as other resources available on the [City's VMT webpage](#) and [OPR's Transportation Impact \(SB 743\) webpage](#), among other sources that contribute to building the record and evidence needed to ultimately support a decision by City Council on the Petaluma VMT Program. An in-depth review of each attachment is not necessary to participate in a meaningful discussion, rather the VMT TAC is encouraged to focus on Attachment 1, and Exhibits A, B, and E thereto.

Following input received from the first VMT TAC meeting, the consultant team will review input and feedback and develop a Petaluma specific Draft VMT Report, which will include recommendations to establish Petaluma's VMT Program. The Draft VMT Report, will be the focus of discussion at a second VMT TAC meeting, expected to occur in July/August 2020. At that second meeting the TAC is expected to be asked to consider the Draft VMT Report containing draft VMT baseline information, metrics, methodology, screening levels, thresholds, and mitigation measures and will be tasked with providing input and feedback.

Input received from the second VMT TAC meeting will be integrated into a Final VMT Report and guide staff's recommendations, which will then be presented to decision making bodies including at least one public hearing before the Planning Commission and at least one public hearing before the City Council.

PUBLIC OUTREACH

Establishing the City of Petaluma's VMT program is a public process with multiple opportunities to participate, provide input, and feedback, including during the VMT TAC meetings.

ATTACHMENTS

Attachment 1: Memorandum: Summary of Key Decisions for SB 743 Implementation

- Exhibit A: Matrix Summary of SB 743 Decisions, Options and Recommendations
- Exhibit B: Travel Behavior Forecasting Model Comparison
- Exhibit C: Adjustment to Model Gateways
- Exhibit D: Small Project Triggers
- Exhibit E: Petaluma VMT Mitigation Memorandum
 - Attachment A: Comparison of CAPCOA Strategies vs. New Research Since 2010
 - Attachment B: Relevant Strategies for Implementation in Petaluma
 - Attachment C: Methodologies to Qualify VMT Reduction
 - Attachment D: CAPCOA Guidance on Combining VMT Reduction Strategies
- Exhibit F: Adopted Goals and Policies Related to VMT and LOS
 - Attachment A: General Plan
 - Attachment B: Bicycle and Pedestrian master Plan
 - Attachment C: Safe Routes to School