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VIA EMAIL: CEQA.Guidelines@resources.ca.gov

May 15, 2018

Christopher Calfee
Deputy Secretary and General Counsel
California Natural Resources Agency
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

RE: Comments on Proposed Updates to the CEQA Guidelines

Dear Mr. Calfee:

On behalf of the Building Industry Legal Defense Foundation (BILD), we are providing with this letter, comments on the Proposed Updates to the CEQA Guidelines (Updates).

BILD is a non-profit mutual benefit corporation and a wholly-controlled affiliate of the Building Industry Association of Southern California, Inc. ("BIASC"). BIASC represents approximately 1,200 member companies across Southern California that are active in all aspects of the building industry, including land development; builders of housing, commercial, and infrastructure; and related entities including architects, engineers, planners, contractors, suppliers, and property owners. The purposes of BILD are, in part, to initiate or support litigation or agency action designed to improve the business climate for the building industry and to monitor and involve itself in government regulation critical to the industry.

We would like to join in the substance of the comments submitted by the coalition that included the Associated General Contractors of California (AGC), the California Building Industry Association (CBIA), California Business Properties Association (CBPA), and others, submitted to your office in a letter dated March, 15, 2018. Through our letter, we incorporate by reference all comments made in the AGC/CBIA/CBPA coalition comment letter.

We also would like to reiterate the arguments we raised in our petition to declare as an underground regulation, the Technical Advisory on Evaluating Transportation Impacts in CEQA (the VMT Appendix). We



note that in prior iterations of the proposed Updates to CEQA, the VMT Appendix was considered integral and a part of the overall regulatory package. Only in the current iteration of the Updates, was the VMT Appendix released as a separate, standalone document, without any compliance with the Administrative Procedures Act. We have included details of our arguments related to the VMT Appendix in our petition which is incorporated herein and attached to this letter.

We realize that our comments are reaching your agency after the closure of the official comment period. However, we are filing our comments now as the Office of Administrative Law (OAL) notified us after the closure of the comment period on the Updates, that it was refusing to accept our petition to declare the VMT Appendix an underground regulation. We note that OAL made no ruling on the merits of our petition, but simply declined acceptance in a summary fashion.

We thank you for your attention and acceptance of these comments. We hope they will assist the agency as it revises the proposed Updates. Should you have any questions or if I can be of any assistance, please contact me at (949) 777-3849 or via email at sbeltran@bildfoundation.org.

Kind regards,

A handwritten signature in cursive script that reads "Shanda M. Beltran".

Shanda M. Beltran, Esq.
General Counsel

Attachment

Cc: BILD Board of Directors

PETITION TO THE OFFICE OF ADMINISTRATIVE LAW

Re: Alleged Underground Regulation

From: Jennifer L. Hernandez, Holland & Knight, LLP, on behalf of the Building Industry Legal Defense Foundation (“BILDF”)

Date: January 29, 2018

1. Identifying Information

Jennifer L. Hernandez
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2. Agency Being Challenged

Office of Planning and Research (“OPR”)

3. Description of the Underground Regulation and of the Agency Action By Which It Was Issued

In November of 2017, OPR issued a guidance document entitled, “Technical Advisory on Evaluating Transportation Impacts in CEQA,” which requires consideration of vehicle miles travelled (“VMT”) as new “impacts” requiring evaluation and mitigation under the California Environmental Quality Act (“CEQA”).¹ (“VMT CEQA Guidance”) (See Attachment A).²

The VMT CEQA Guidance is in fact a “regulation” and triggers the need to comply with the Administrative Procedure Act (“APA”).³ Specifically, the VMT CEQA Guidance instructs public agencies regarding the use of a new VMT metric to assess transportation impacts under CEQA. OPR was authorized by the State Legislature under Senate Bill 743 (“SB 743”)⁴ to consider integrating these new metrics into CEQA, but only after completing the formal rulemaking process applicable to amending the CEQA Guidelines⁵ – which numerous courts have concluded are the equivalent of regulations – as required by the APA. OPR’s VMT CEQA Guidance is an unlawful underground regulation.

The VMT CEQA Guidance provides qualitative and quantitative significance and screening thresholds for various types of projects,⁶ it includes guidance to public agencies

¹ Pub. Res. Code § 21000 *et seq.*

² See http://opr.ca.gov/docs/20171127_Transportation_Analysis_TA_Nov_2017.pdf (accessed January 9, 2018).

³ Gov. Code § 11340 *et seq.*

⁴ Partially codified as Pub. Res. Code § 21099.

⁵ 14 C.C.R. § 15000 *et seq.*

⁶ See VMT CEQA Guidance, pp. 10-21.

on assessment methodology and the utilization of models to estimate VMT,⁷ and it specifies mitigation measures and project alternatives that could potentially reduce a project's VMT.⁸ As described below, OPR did not comply with the mandatory APA procedures in issuing the VMT CEQA Guidance, and therefore it is an “underground regulation” under the APA. In light of OPR’s violation of the APA and SB 743, the VMT CEQA Guidance should be repealed and withdrawn.

It should also be noted that OPR has proposed formal rulemaking for a comprehensive update to the CEQA Guidelines involving amendments to nearly 30 sections, including VMT provisions pursuant to SB 743 addressed and expanded upon in the VMT CEQA Guidance.⁹ OPR has an obvious and efficient means of correcting its unlawful promulgation of an underground regulation by including the VMT CEQA Guidance as part of this proposed formal rulemaking as it was directed by the State Legislature under SB 743, discussed below.

In conjunction with the comprehensive CEQA Guidelines update, OPR has for the past three years been working to update the CEQA Guidelines pursuant to SB 743 to include criteria for assessing the significance of transportation impacts using new VMT metrics.¹⁰ While the comprehensive CEQA Guidelines update, discussed above, includes updates to the CEQA Guidelines pursuant to SB 743 which have been proposed pursuant the APA, OPR additionally released the VMT CEQA Guidance as a separate, standalone document with no compliance with the APA. Below is a detailed description of OPR’s actions in relation to the VMT CEQA Guidance showing that OPR in fact “issued” the VMT CEQA Guidance and that this is in fact an unlawful underground regulation that leaps ahead of the required corresponding regulatory amendments to the CEQA Guidelines.

In August 2014, OPR released a preliminary “discussion draft” of the CEQA Guidelines update *for public review and comment*.¹¹ This package included a new CEQA Guidelines section regarding analysis of transportation impacts using new VMT metrics and appendices containing detailed technical guidance. In January 2016, OPR released a second “discussion draft” *for public review and comment* that again included a new CEQA Guidelines section regarding transportation impact analysis using new VMT metrics, in addition to a document entitled, “Technical Advisory on Evaluating Transportation Impacts in CEQA – Implementing Senate Bill 743 (Steinberg, 2013)” (“2016 Technical Advisory”), which contained technical instructions and guidance to supplement the new CEQA Guideline section.¹²

⁷ See VMT CEQA Guidance, pp. 2-4, Appendix 1 and 2.

⁸ See VMT CEQA Guidance, pp. 21-23.

⁹ See California Natural Resource Agency press release on January 26, 2018, “Natural Resources Agency Seeks Public Comment on Proposed Update to State’s Environmental Review Process” available at <http://resources.ca.gov/wp-content/uploads/2018/01/CNRA-seeks-public-comment-on-CEQA-guidelines-update.pdf> (accessed January 28, 2018).

¹⁰ See OPR’s dedicated webpage at <http://opr.ca.gov/ceqa/updates/sb-743/> (accessed January 9, 2018).

¹¹ See http://opr.ca.gov/docs/Final_Preliminary_Discussion_Draft_of_Updates_Implementing_SB_743_080614.pdf (accessed January 9, 2018).

¹² See http://opr.ca.gov/docs/Revised_VMT_CEQA_Guidelines_Proposal_January_20_2016.pdf (accessed January 9, 2018).

In November 2017, OPR released a third, more comprehensive, CEQA update package,¹³ *which has been proposed for adoption pursuant to the APA.*¹⁴ Again, a proposed new CEQA Guideline section that prescribed a new form of required transportation analysis using VMT metrics¹⁵ was included in the draft regulatory amendments to the CEQA Guidelines.

However, in this third version of its proposal, instead of including an updated version of the 2016 Technical Advisory as part of its VMT rulemaking proposal itself, OPR issued the VMT CEQA Guidance as *a standalone document to take effect independent of the required VMT regulatory changes to the CEQA Guidelines in violation of the APA.*¹⁶ In doing so, OPR gave no explanation for this bifurcation, which leapfrogged a portion of its VMT expansion of CEQA ahead of the corresponding regulatory amendments to the CEQA Guidelines that are specifically authorized by SB 743.

It is noteworthy that the VMT CEQA Guidance contains sections that are identical to sections of the 2016 Technical Advisory, and contains the bulk of the new criteria for determining the significance of transportation impacts that is required by SB 743. By extracting the VMT CEQA Guidance from the ongoing regulatory amendments to the CEQA Guidelines, and issuing it as an applicable advisory on the appropriate criteria for addressing VMT as a CEQA impact, OPR deliberately avoided its duties under the APA and SB 743, and issued an unlawful underground regulation.

4. Legal Basis For Concluding That the Challenged VMT CEQA Guidance Is a Regulation under Government Code § 11342.600 and Not within Any Express APA Exemption

A. The VMT CEQA Guidance is a “regulation” under Government Code § 11342.600.

OPR’s VMT CEQA Guidance is a “regulation” under Government Code § 11342.600 and therefore requires adoption pursuant to the APA. The APA requires that, “[n]o state agency shall issue, utilize, enforce, or attempt to enforce any guideline, criterion, bulletin, manual, instruction, order, standard of general application, or other rule, which is a “regulation” under the APA unless it has been adopted as a regulation and filed with the Secretary of State pursuant to the APA.”¹⁷ Under the APA, “regulation” means, “every

¹³ This CEQA update package was more comprehensive than the previous packages, including updates to nearly 30 different sections of the CEQA Guidelines, including the section regarding transportation impact analysis required by SB 743. Available at http://opr.ca.gov/docs/20171127_Comprehensive_CEQA_Guidelines_Package_Nov_2017.pdf (accessed January 9, 2018).

¹⁴ See California Natural Resource Agency press release on January 26, 2018, “Natural Resources Agency Seeks Public Comment on Proposed Update to State’s Environmental Review Process” available at <http://resources.ca.gov/wp-content/uploads/2018/01/CNRA-seeks-public-comment-on-CEQA-guidelines-update.pdf> (accessed January 28, 2018).

¹⁵ See http://opr.ca.gov/docs/20171127_Text_of_15064-3.pdf (accessed January 11, 2018).

¹⁶ See VMT CEQA Guidance as a standalone document on OPR’s SB 743 webpage, available at <http://opr.ca.gov/ceqa/updates/sb-743/> (accessed January 9, 2017).

¹⁷ Gov. Code § 11340.5(a).

rule, regulation, order, or standard of general application or the amendment, supplement, or revision of any rule, regulation, order or standard adopted by any state agency to implement, interpret, or make specific the law enforced or administered by it, or to govern its procedure.”¹⁸ Thus, to be considered a “regulation” under the APA, the VMT CEQA Guidance must contain 1) any guideline, criterion, bulletin, manual, instruction, order, standard, or other rule, 2) that is generally applicable, and 3) adopted to implement, interpret, or make specific the law enforced or administered by OPR.

i. The VMT CEQA Guidance contains guidelines, criteria, and instructions.

It is the substance of the regulatory measure that determines its status as a “regulation” under the APA, not the agency’s label, and the substance of the VMT CEQA Guidance meets the definition of a “regulation.” The APA’s definition of regulation is deliberately broad to include, “rules, regulations, orders, or standards,” but only those rules, regulations, orders, or standards that are generally applicable and that implement or interpret the law administered by the agency. Similarly, the APA’s general requirement that regulations are adopted pursuant to APA procedures applies to “any guideline, criterion, bulletin, manual, instruction, order, standard of general application, *or other rule*,” (emphasis added) indicating legislative intent that the term regulation under the APA is to include regulatory measures beyond “rules, regulations, orders, or standards.” The catch-all phrase “or other rule” further indicates legislative intent to construe the term broadly.

OPR’s claims that the VMT CEQA Guidance contains only recommendations and may be used at the discretion of public agencies do not negate its status as a regulation under the APA. No matter OPR’s categorization of the VMT CEQA Guidance, it contains guidelines, criteria, and instructions for assessing transportation impacts under CEQA. As mentioned above, it provides qualitative and quantitative significance and screening thresholds for various types of projects;¹⁹ it advises agencies on assessment methodology and the utilization of models to estimate VMT;²⁰ and it specifies mitigation measures and project alternatives that could potentially reduce a project’s VMT.²¹ These components

¹⁸ Gov. Code § 11342.600.

¹⁹ For example, the VMT CEQA Guidance contains the following screening threshold for small projects: “Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact.” For residential and office projects, the VMT CEQA Guidance includes the following significance threshold: “A proposed project exceeding a level of 15 percent below existing regional VMT per employee may indicate a significant transportation impact.” See VMT CEQA Guidance, pp. 10-21 generally for screening and significance thresholds.

²⁰ For example, the VMT CEQA Guidance provides the following guidance on assessment methodology: “Tour- and trip-based approaches offer the best methods for assessing VMT from residential/office projects and for comparing those assessments to VMT thresholds. These approaches also offer the most straightforward methods for assessing VMT reductions from mitigation measures for residential/office projects. When available, tour-based assessment is ideal because it captures travel behavior more comprehensively. But where tour-based tools or data are not available for all components of an analysis, a trip-based assessment of VMT serves as a reasonable proxy.” See VMT CEQA Guidance, pp. 2-4, Appendix 1 and 2 generally for guidance on assessment methodology.

²¹ Examples of proposed mitigation measures include: “Incorporate affordable housing into the project,” and, “Incorporate neighborhood electric vehicle network.” Examples of proposed alternatives include: “Locate the

of the VMT CEQA Guidance certainly guide, instruct, and provide criteria to public agencies and CEQA practitioners evaluating transportation impacts.

Although the definition of regulation under the APA contains no requirement that a regulation be compulsory, the compulsory requirements of the VMT CEQA Guidance indicate OPR's intent that the provisions of the VMT CEQA Guidance be considered regulations. For example, the VMT CEQA Guidance contains express compulsory thresholds of significance for residential projects:

*In MPO areas, development in unincorporated areas measured against aggregate city VMT per capita (rather than regional VMT per capita) **must not cumulatively exceed the population or number of units specified in the SCS for that city.***

...

*Proposed development referencing city VMT per capita **must not cumulatively exceed the number of units specified in the SCS for that city, and must be consistent with the SCS.**²²*

Further, the VMT CEQA Guidance is compulsory in practice. To illustrate this point, it is important to understand that CEQA has various forms of compliance. The most rigorous form of compliance is through the preparation of an Environmental Impact Report ("EIR"), which requires volumes of technical studies that take expensive experts months, even years, to produce. An agency must prepare an EIR, as opposed to a lesser form of compliance, if it finds that a project exceeds a threshold of significance for any impact covered by CEQA, indicating that the project would have a significant impact. CEQA gives agencies discretion to utilize their own significance thresholds;²³ however, an EIR is further required if the agency "is presented with a fair argument that a project may have a significant effect on the environment...even though it may also be presented with other substantial evidence that the project will not have a significant effect [i.e., the project does not exceed any of the agency's chosen significance thresholds]."²⁴ This means that despite an agency's own efforts to gather and consider substantial evidence and despite its determination that a project will not have a significant effect on the environment, it must prepare an EIR if it is presented with evidence that conflicts with its own.

The VMT CEQA Guidance contains so-called "recommended" significance thresholds and corresponding findings in support. However, based on the principles discussed above, these thresholds are mandatory minimums because they provide an agency-authored "fair argument" that a project exceeding them would cause a significant impact. For example, to support the fifteen percent below existing VMT threshold, the VMT

project in an area of the region that already exhibits low VMT," and "Locate the project near transit." See general mitigation and alternatives discussion at VMT CEQA Guidance, pp. 22-23, and mitigation measures applicable to transportation projects specifically at VMT CEQA Guidance, p. 21.

²² VMT CEQA Guidance, p. 12, emphasis added.

²³ 14 C.C.R. § 15064.7.

²⁴ 14 C.C.R. § 15064(f)(1).

CEQA Guidance states that, “Based on OPR’s extensive review of the applicable research and literature on this topic, **OPR finds that in most instances a per capita or per employee VMT that is fifteen percent below that of existing development may be a reasonable threshold.**”²⁵ If an agency exercises its discretion to use a less stringent threshold and determines that a project would not cause significant transportation impacts, any party may cite to the thresholds and findings contained in the VMT CEQA Guidance as part of a “fair argument” that the project would nevertheless result in a significant impact, thus triggering the EIR requirement. Accordingly, the VMT CEQA Guidance effectively requires an agency to prepare an EIR for all projects that would exceed the “recommended” thresholds contained in the VMT CEQA Guidance.

As such, the VMT CEQA Guidance is a regulation under the APA that contains guidance, criteria, and instructions that are compulsory by its express language and in practice.

ii. The VMT CEQA Guidance is generally applicable.

The VMT CEQA Guidance instructs agencies how to analyze transportation impacts for all projects covered by CEQA. Under CEQA, a “project” is any discretionary activity, which is either undertaken by the agency or requires an approval by the agency, that may cause either a direct physical change or a reasonably foreseeable indirect physical change in the environment.²⁶ Because CEQA applies to both an agency’s own actions and its approval of private actions, the VMT CEQA Guidance will apply to public and private projects alike. Further, while the definition of a project most obviously includes physical developments and improvements, it also includes planning efforts and *any* other discretionary decision that may cause even an indirect change in the environment.

The VMT CEQA Guidance covers all types of land use projects, of all sizes, and in rural and urban locations. It includes screening thresholds for “small projects,”²⁷ for residential and office projects,²⁸ and for projects near transit stations.²⁹ The VMT CEQA Guidance contains numeric significance thresholds for residential projects,³⁰ for office projects,³¹ for retail projects,³² for mixed-use projects,³³ for redevelopment projects,³⁴ and for rural projects.³⁵ It contains extensive guidance and instruction on assessing impacts resulting from transportation projects.³⁶

²⁵ VMT CEQA Guidance, p. 8 (emphasis original).

²⁶ Pub. Res. Code § 21065.

²⁷ See VMT CEQA Guidance, p. 10.

²⁸ See VMT CEQA Guidance, p. 10.

²⁹ See VMT CEQA Guidance, pp. 11-12.

³⁰ See VMT CEQA Guidance, pp. 12-13.

³¹ See VMT CEQA Guidance, p. 13.

³² See VMT CEQA Guidance, pp. 13-14.

³³ See VMT CEQA Guidance, p. 14.

³⁴ See VMT CEQA Guidance, p. 14.

³⁵ See VMT CEQA Guidance, p. 15.

³⁶ See VMT CEQA Guidance, pp. 16-21.

The VMT CEQA Guidance includes guidance on every aspect of environmental analysis under CEQA. It contains screening and significance thresholds,³⁷ impact assessment methodology,³⁸ and mitigation methods and project alternatives that would reduce impacts.³⁹ Thus, the VMT CEQA Guidance will play a role in assessing project transportation impacts whether the project requires an EIR, which includes mitigation measures and analyzes project alternatives, or a less rigorous compliance track, which relies on screening thresholds to determine the project would have no significant impacts.

Therefore, it is plain to see that the VMT CEQA Guidance applies generally to all agency actions that constitute a “project” under CEQA no matter the type, size, location, and level of CEQA compliance.

iii. The VMT CEQA Guidance implements SB 743.

As discussed above, SB 743 requires OPR to establish criteria for determining the significance of transportation impacts and to revise the CEQA Guidelines to reflect the new criteria.⁴⁰ In doing so, SB 743 expressly requires OPR to comply with the rulemaking procedures in the APA.⁴¹ To implement SB 743, OPR is updating the CEQA Guidelines through a public review and comment process pursuant to the APA. The most recent package released for public review and comment includes a new CEQA Guideline section that specifies that VMT is the, “most appropriate measure of transportation impacts,” and contains general criteria for evaluating impacts using a VMT metric.⁴² However, absent from the most recent package is the VMT CEQA Guidance, which establishes more detailed criteria regarding VMT analysis. The VMT CEQA Guidance also includes extensive background on SB 743 and cites to SB 743 15 times in its 23 pages, not including the appendices. Because the new proposed CEQA Guideline section and the VMT CEQA Guidance both provide criteria for determining the significance of transportation impacts, both implement SB 743 and both should be adopted pursuant to the APA.

Further, OPR’s January 2016 CEQA Guidelines update package that was released for public review and comment pursuant to the APA included the 2016 Technical Advisory (previously defined), which contains sections that are identical to sections in the VMT CEQA Guidance. With no explanation, OPR extracted the VMT CEQA Guidance from its November 2017 CEQA Guidelines update package and released it as a standalone document not subject to public review under the APA.⁴³ One glaring, and telling, difference in the two advisories is their title. The VMT CEQA Guidance is entitled,

³⁷ See VMT CEQA Guidance, pp. 10-21.

³⁸ See VMT CEQA Guidance, pp. 2-4, Appendix 1 and 2.

³⁹ See VMT CEQA Guidance, pp. 21-23.

⁴⁰ Pub. Res. Code § 21099(b).

⁴¹ Pub. Res. Code §§ 21099(b), 21083.

⁴² See proposed new CEQA Guideline, 14 C.C.R. § 15064.3, available at http://opr.ca.gov/docs/20171127_Text_of_15064-3.pdf

⁴³ See VMT CEQA Guidance as a standalone document on OPR’s SB 743 webpage, available at <http://opr.ca.gov/ceqa/updates/sb-743/> (accessed January 9, 2017).

“Technical Advisory on Evaluating Transportation Impacts in CEQA,” and the 2016 Technical Advisory is entitled, “Technical Advisory on Evaluating Transportation Impacts in CEQA – *Implementing Senate Bill 743 (Steinberg, 2013)*” (emphasis added). The 2016 Technical Advisory’s title is evidence that OPR intended the 2016 Technical Advisory to implement SB 743. In light of the change in title between the two nearly identical drafts to exclude the words, “Implementing Senate Bill 743,” it appears obvious that OPR intended to avoid the procedural requirements of the APA despite the fact that it was aware that the VMT CEQA Guidance contains regulations implementing SB 743.

B. The VMT CEQA Guidance is not expressly exempt from the APA by statute.

The VMT CEQA Guidance is not a regulation that is expressly exempt from the APA. In fact, as mentioned above, the State Legislature in SB 743 expressly directed that in order to expand or modify CEQA to include a new or modified transportation impact metric, such as VMT, OPR must adopt regulations in the form of amendments to the CEQA Guidelines pursuant to the APA.⁴⁴

5. The VMT CEQA Guidance Fails to Comply with Applicable Rulemaking Criteria under the APA

Had OPR followed the APA and subjected the VMT CEQA Guidance to the applicable rulemaking procedures, the clear and repeated legal deficiencies in the VMT CEQA Guidance could have been readily identified and corrected. As drafted, numerous provisions of the VMT CEQA Guidance violate applicable provisions of the APA and specifically Section 11349.1(a) of the Government Code. Specifically, the VMT CEQA Guidance:

- Is unnecessary to effectuate the purpose of CEQA generally and SB 743 specifically;
- Includes new mandates that are beyond OPR’s authority pursuant to CEQA and SB 743;
- Does not provide the requisite level of clarity that would allow its provisions to be easily understood by those directly affected by them;
- Includes provisions that are inconsistent with other laws, including laws intended to protect public health and safety, air quality, and vehicular mobility;
- Contains reference to, but intentionally evades the appearance that it implements, SB 743;⁴⁵ and
- Duplicates the purpose of the CEQA Guidelines update regarding transportation impacts presented as part of the comprehensive CEQA update package released in

⁴⁴ Pub. Res. Code §§ 21099(b), 21083.

⁴⁵ Compare the 2016 Technical Advisory, which includes in its title, “Implementing Senate Bill 743 (Steinberg, 2013),” and the VMT CEQA Guidance, which intentionally omits this phrase.

November 2017 for which formal rulemaking is required pursuant to the APA and has commenced in January of 2018.⁴⁶

However, these shortcomings are appropriately addressed in the context of the critique of the VMT CEQA Guidance provided for under the formal rulemaking process specifically required by the APA and SB 743.

6. Reasons Why This Petition Raises an Issue of Considerable Public Importance Requiring Prompt Resolution

In adopting the APA, the State Legislature intended to lessen the, “unnecessary burden on California citizens,” and declared that, “language of many regulations is frequently unclear and unnecessarily complex...[and] is often confusing to the persons who must comply with the regulations.”⁴⁷ This is especially true for regulations under CEQA. Impact analysis, and especially transportation impact analysis, is a highly technical endeavor requiring expertise in specialized planning concepts and complex modeling. For decades, transportation experts have relied on the level of service metric to analyze transportation impacts under CEQA, so the introduction of the VMT metric will require a complete overhaul in the analysis of these impacts. Understanding the technical nature of transportation impact analysis, the State Legislature had the foresight in SB 743 to direct OPR to adopt the new transportation metrics pursuant to the APA in order to allow public and agency review and comment to shape the new metrics and avoid future confusion. Instead, OPR denied the public and other public agencies the right to have a meaningful influence on the new VMT metrics that could avoid unnecessary confusion and burden.

OPR created further complications by bifurcating its rulemaking duties under SB 743 creating uncertainty on what CEQA requires. By processing a new CEQA Guideline through the APA rulemaking process and separately publishing a technical guidance on the same subject, OPR has confused an already complicated and technical regulatory environment. It is the purpose of the APA to limit, “the complexity and lack of clarity in many regulations.”⁴⁸ By ignoring its duties under the APA, OPR has created an unnecessarily complex and confusing regulatory scheme in direct conflict with the purpose of the APA.

Confusion in the context of CEQA is of particular public importance due to the high financial burden of CEQA compliance. Because CEQA requires complex analysis it necessarily involves consultation with expensive experts who must prepare expensive studies that must be reviewed by expensive lawyers, all of which rely on the CEQA Guidelines for guidance and instruction. If CEQA regulations are unclear, CEQA practitioners are unable to produce analysis that can withstand the scrutiny of reviewing courts. Further, if a court invalidates a CEQA document based on insufficient analysis,

⁴⁶ See California Natural Resource Agency press release on January 26, 2018, “Natural Resources Agency Seeks Public Comment on Proposed Update to State’s Environmental Review Process” available at <http://resources.ca.gov/wp-content/uploads/2018/01/CNRA-seeks-public-comment-on-CEQA-guidelines-update.pdf> (accessed January 28, 2018).

⁴⁷ Gov. Code § 11340(b).

⁴⁸ Gov. Code § 11340(g).

all project approvals are invalidated until the analysis is updated. As such, CEQA compliance is expensive, and it is especially expensive when it must be repeated.

Because public agencies are responsible for CEQA compliance, confusion in the law is especially costly to the public. It is true that in practice applicants of private projects often reimburse public agencies for the cost of CEQA compliance, however, because CEQA applies to both private and public projects agencies are often paying the CEQA compliance bill. For example, it is public agencies that pursue transportation projects, such as new roads and transit systems. In doing so the agency is responsible for the cost of CEQA compliance, including transportation impacts governed by OPR's new SB 743 regulations. As such, confusion resulting from the VMT CEQA Guidance could potentially lead to lawsuits and repetitive analysis that will have a high financial burden on the public.

Although the burden to all manner of development from confusing CEQA regulations is high, perhaps the most burdensome to Californians is the barrier on housing development. Every Californian is aware of the State's severe shortage of housing, both market rate and affordable housing,⁴⁹ there is even a radio podcast dedicated to California's housing crisis.⁵⁰ The State Legislature recently adopted and the Governor signed into law a housing package that includes 15 new laws aimed to increase housing stock in California.⁵¹ However, CEQA is being litigated in a way that severely affects California's housing stock. Between 2013 and 2015 CEQA lawsuits have targeted nearly 14,000 housing units in *southern California alone*.⁵² Confusion introduced into CEQA only further affects the State's ability to produce desperately needed housing.

⁴⁹ See the following news articles: Cox, John, California Economic Summit, *Thinking Boldly about California Housing and CEQA*, available at <http://caeconomy.org/reporting/entry/thinking-boldly-about-california-housing-and-ceqa> (accessed January 11, 2018); Oreskes, Benjamin, et al., Los Angeles Times, *Newsletter: Essential California: The many different facets of California's housing crisis*, available at <http://www.latimes.com/newsletters/la-me-ln-essential-california-20171204-story.html> (accessed January 11, 2018); Nagourney, Adam, et al., New York Times, *The Cost of a Hot Economy in California: A Severe Housing Crisis*, available at <https://www.nytimes.com/2017/07/17/us/california-housing-crisis.html> (accessed January 11, 2018); Jones, Carolyn, Huffington Post, *Housing Crisis In California Forces More Students Into Homelessness*, available at https://www.huffingtonpost.com/entry/housing-crisis-in-california-forces-more-students-into-us_59d3d87be4b0da85e7f5ec42 (accessed January 11, 2018); and Lajeunesse, William, Fox News, *California housing crisis affecting middle class the most: It's 'a broken system'*, available at <http://www.foxnews.com/us/2017/12/14/california-housing-crisis-affecting-middle-class-most-its-broken-system.html> (accessed January 11, 2018).

⁵⁰ See The California Housing Crisis Podcast, *The California Housing Crisis Podcast's predictions for 2018*, available at <http://www.latimes.com/politics/essential/la-pol-ca-essential-politics-updates-gimme-shelter-the-california-housing-1513899224-htmlstory.html> (accessed January 11, 2018).

⁵¹ See the Housing and Community Development press release at <http://campaign.r20.constantcontact.com/render?m=1120322818772&ca=18711b5a-8fd7-44ee-a901-4fa5667dcf8d> (accessed January 11, 2018) and its webpage dedicated to these new housing laws at <http://www.hcd.ca.gov/policy-research/lhp.shtml> (accessed January 11, 2018).

⁵² See Hernandez, Jennifer L. et al., *In the Name of the Environment Update: CEQA Litigation Update for SCAG Region (2013-2015)*, available at <https://www.hklaw.com/files/Uploads/Documents/Alerts/Environment/InfillHousingCEQALawsuits.pdf> (accessed January 11, 2108).

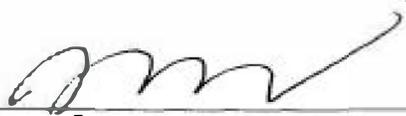
In conclusion, OPR is committing an obvious and serious abuse of its authority. As described above, the VMT CEQA Guidance contain “regulations” that trigger the procedural requirements of the APA based on its content, *and* based on the State Legislature’s specific and express directive in SB 743. OPR ignored this statutory directive. Further, there is evidence that OPR avoided the procedural requirements of the APA intentionally and in bad faith. In light of OPR’s violation of the APA, the VMT CEQA Guidance should be repealed and adopted pursuant to the APA as part of OPR’s ongoing CEQA regulatory update pursuant to Senate Bill 743.

7. Certifications

I certify that I have submitted a copy of this petition and all attachments to:

Office of Administrative Law
300 Capitol Mall, Suite 1250
Sacramento, CA 95814
Attention: Chapter 2 Compliance Unit
Fax: 916-323-6826
Email: staff@oal.ca.gov

I certify that all of the above information is true and correct to the best of my knowledge.



JENNIFER L. HERNANDEZ 1/29/18
DATE

ATTACHMENT A

TECHNICAL ADVISORY

ON EVALUATING TRANSPORTATION IMPACTS IN CEQA



November 2017

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A. Introduction

This technical advisory is one in a series of advisories provided by the Governor’s Office of Planning and Research (OPR) as a service to professional planners, land use officials, and CEQA practitioners. OPR issues technical guidance on issues that broadly affect the practice of land use planning and the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.). The purpose of this document is to provide advice and recommendations, which agencies and other entities may use at their discretion. This document should not be construed as legal advice.

[Senate Bill 743](#) (Steinberg, 2013) required changes to the guidelines implementing CEQA (CEQA Guidelines) (Cal. Code Regs., Title 14, Div. 6, Ch. 3, § 15000 et seq.) regarding the analysis of transportation impacts. OPR has proposed changes to the CEQA Guidelines that identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project’s transportation impacts. The proposed changes also provide that the analysis of certain transportation projects must address the potential for induced travel. Once the California Natural Resources Agency adopts these changes to the CEQA Guidelines, automobile delay, as measured by “level of service” and other similar metrics, generally will no longer constitute a significant environmental effect under CEQA.

This advisory contains technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. OPR will continue to monitor implementation of these new provisions and may update or supplement this advisory in response to new information and advancements in modeling and methods.

B. Background

VMT and Greenhouse Gas Emissions Reduction. Senate Bill 32 (Pavley, 2016) requires California to reduce greenhouse gas emissions 40 percent below 1990 levels by 2030, and Executive Order B-16-12 provides a target of 80 percent below 1990 emissions levels for the transportation sector by 2050. The transportation sector has three major means of reducing greenhouse gas emissions: increasing vehicle efficiency, reducing fuel carbon content, and reducing the amount of vehicle travel. The California Air Resources Board (CARB) has provided a path forward for achieving these emissions reductions from the transportation sector in its 2016 Mobile Source Strategy. CARB determined that it will not be possible to achieve the State’s 2030 and post-2030 emissions goals without reducing VMT growth.

VMT and Other Impacts to Health and Environment. Beyond greenhouse gas emissions, increases in VMT also impact human health and the natural environment. Human health is impacted as increases in vehicle travel leads to more vehicle crashes, poorer air quality, increases in chronic diseases associated with reduced physical activity, and worse mental health. Increases in vehicle travel also negatively affects other road users, including pedestrians, cyclists, other motorists, and many transit users. The natural environment is impacted as higher VMT leads to more collisions with wildlife and fragments habitat. Additionally, development which leads to more vehicle travel also tends to consume more energy, water, and open space (including farmland and sensitive habitat). This increase in impermeable surfaces raises the flood risk and pollutant transport into waterways. ([Fang et al., 2017.](#))

VMT and Economic Growth. While it was previously believed that VMT growth was a necessary component of economic growth, data from the past two decades shows that economic growth is possible without a concomitant increase in VMT. (Figure 1.) Recent research shows that requiring development projects to mitigate LOS may actually reduce accessibility to destinations and impede economic growth.^{1,2}

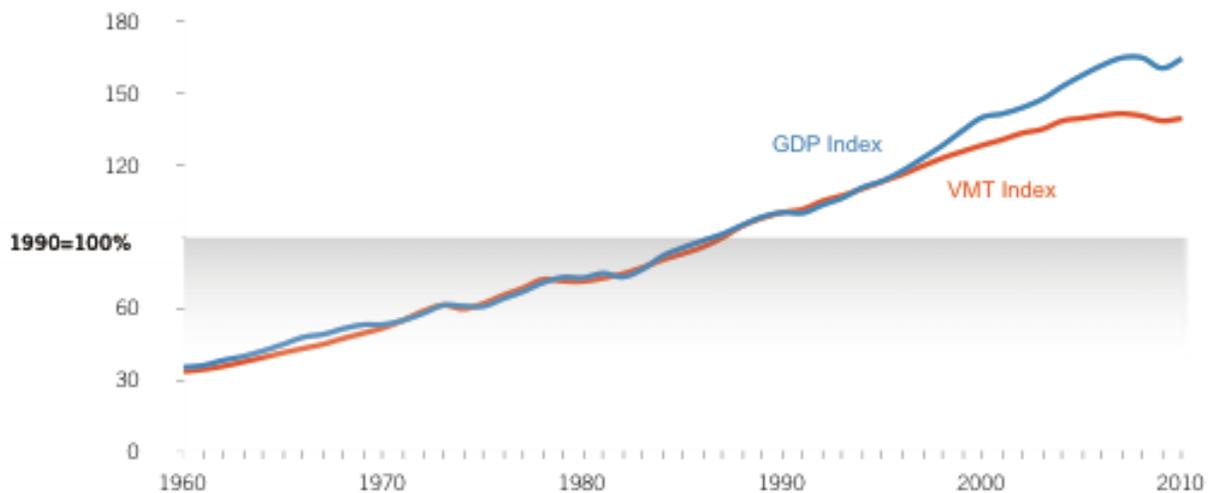


Figure 1. VMT and Gross Domestic Product (GDP), 1960-2010 ([Kooshian and Winkelman, 2011](#))

C. Technical Considerations in Assessing Vehicle Miles Traveled

Many practitioners are familiar with accounting for VMT in connection with long-range planning, or as part of the CEQA analysis of a project’s greenhouse gas emissions or energy impacts. This document provides technical information on how to assess VMT as part of a transportation impacts analysis under CEQA. Appendix 1 provides a description of which VMT to count and options on how to count it. Appendix 2 provides information on induced travel resulting from roadway capacity projects, including the mechanisms giving rise to induced travel, the research quantifying it, and information on additional approaches for assessing it.

1. Recommendations Regarding Methodology

Proposed Section 15064.3 explains that a “lead agency may use models to estimate a project’s vehicle miles traveled....” CEQA generally defers to lead agencies on the choice of methodology to analyze

¹ Haynes et al., [Congested Development: A Study of Traffic Delays, Access, and Economic Activity in Metropolitan Los Angeles](#), Sept. 2015.

² Osman et al., [Not So Fast: A Study of Traffic Delays, Access, and Economic Activity in the San Francisco Bay Area](#), March 2016.

impacts. (*Santa Monica Baykeeper v. City of Malibu* (2011) 193 Cal.App.4th 1538, 1546.) This section provides suggestions to lead agencies regarding methodologies to analyze VMT associated with a project.

Vehicle Types. Proposed Section 15064.3, subdivision (a), states, “For the purposes of this section, ‘vehicle miles traveled’ refers to the amount and distance of automobile travel attributable to a project.” Here, the term “automobile” refers to on-road passenger vehicles, specifically cars and light trucks. Heavy-duty truck VMT could be included for modeling convenience and ease of calculation (for example, where models or data provide combined auto and heavy truck VMT). For an apples-to-apples comparison, vehicle types considered should be consistent across project assessment, significance thresholds, and mitigation.

Residential and Office Projects. Tour- and trip-based approaches³ offer the best methods for assessing VMT from residential/office projects and for comparing those assessments to VMT thresholds. These approaches also offer the most straightforward methods for assessing VMT reductions from mitigation measures for residential/office projects. When available, tour-based assessment is ideal because it captures travel behavior more comprehensively. But where tour-based tools or data are not available for all components of an analysis, a trip-based assessment of VMT serves as a reasonable proxy.

Models and methodologies used to calculate thresholds, estimate project VMT, and estimate VMT reduction due to mitigation should be comparable. For example:

- A tour-based assessment of project VMT should be compared to a tour-based threshold, or a trip-based assessment to a trip-based VMT threshold.
- Where a travel demand model is used to determine thresholds, the same model should also be used to provide trip lengths as part of assessing project VMT.
- Where only trip-based estimates of VMT reduction from mitigation are available, a trip-based threshold should be used, and project VMT should be assessed in a trip-based manner.

When a trip-based method is used to analyze a residential project, the focus can be on home-based trips. Similarly, when a trip-based method is used to analyze an office project, the focus can be on home-based work trips.

When tour-based models are used to analyze an office project, either employee work tour VMT or VMT from all employee tours may be attributed to the project. This is because workplace location influences overall travel. For consistency, the significance threshold should be based on the same metric: either employee work tour VMT or VMT from all employee tours.

For office projects that feature a customer component, such as a government office that serves the public, a lead agency can analyze the customer VMT component of the project using the methodology for retail development (see below).

³ See Appendix 1, *Considerations About Which VMT to Count*, for a description of these approaches.

Retail Projects. Generally, lead agencies should analyze the effects of a retail project by assessing the change in total VMT⁴ because retail projects typically re-route travel from other retail destinations. A retail project might lead to increases or decreases in VMT, depending on previously existing retail travel patterns.

Considerations for All Projects. Lead agencies should not truncate any VMT analysis because of jurisdictional or other boundaries. CEQA requires environmental analyses to reflect a “good faith effort at full disclosure.” (CEQA Guidelines, § 15151.) Thus, where methodologies exist that can estimate the full extent of vehicle travel from a project, the lead agency should apply them to do so. Analyses should also consider a project’s both short- and long-term effects on VMT.

Any project that includes in its geographic bounds a portion of an existing or planned Transit Priority Area (i.e., the project is within a ½ mile of an existing or planned major transit stop or an existing stop along a high quality transit corridor) may employ VMT as its primary metric of transportation impact for the entire project. (See Pub. Resources Code, § 21099, subs. (a)(7), (b)(1).)

D. General Principles to Guide Consideration of VMT

SB 743 directs OPR to establish specific “criteria for determining the significance of transportation impacts of projects[.]” (Pub. Resources Code, § 21099, subd. (b)(1).) In establishing this criterion, OPR was guided by the general principles contained within CEQA, the CEQA Guidelines, and applicable case law. A brief summary of the relevant principles is found below.

The CEQA Guidelines set forth the general rule for determining significance:

The determination of whether a project may have a significant effect on the environment calls for **careful judgment** on the part of the public agency involved, **based to the extent possible on scientific and factual data**. An ironclad definition of significant effect is not always possible because **the significance of an activity may vary with the setting**. For example, an activity which may not be significant in an urban area may be significant in a rural area.

(CEQA Guidelines, § 15064, subd. (b) (emphasis added).) This confirms that context matters in a CEQA analysis and that lead agencies have discretion in the precise methodology to analyze an impact. (See *Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 409 [“the issue is not whether the studies are irrefutable or whether they could have been better” ... rather, the “relevant issue is only whether the studies are sufficiently credible to be considered” as part of the lead agency’s overall evaluation]; *Santa Monica Baykeeper v. City of Malibu*, *supra*, 193 Cal.App.4th at p. 1546 [substantial evidence standard applies to agency’s choice of methodology].) Therefore, lead agencies may perform a multimodal impact analysis that incorporates the technical approaches and

⁴ See Appendix 1, *Considerations About Which VMT to Count*, “Assessing Change in Total VMT” section, for a description of this approach.

mitigation strategies that are best suited to the unique land use/transportation circumstances and specific facility types they are evaluating.

To assist in the determination of significance, many lead agencies rely on “thresholds of significance.” The CEQA Guidelines define a “threshold of significance” to mean “an identifiable **quantitative, qualitative⁵ or performance level** of a particular environmental effect, non-compliance with which means the effect will *normally* be determined to be significant by the agency and compliance with which means the effect *normally* will be determined to be less than significant.” (CEQA Guidelines, § 15064.7, subd. (a) (emphasis added).) Agencies may adopt their own, or rely on thresholds recommended by other agencies, “provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.” (*Id.* at subd. (c).) Substantial evidence 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.” (*Id.* at § 15384 (emphasis added).)

Thresholds of significance are not a safe harbor under CEQA; rather, they are a starting point for analysis:

[T]hresholds cannot be used to determine automatically whether a given effect will or will not be significant. Instead, thresholds of significance can be used only as a measure of whether a certain environmental effect “will normally be determined to be significant” or “normally will be determined to be less than significant” by the agency In each instance, notwithstanding compliance with a pertinent threshold of significance, the agency must still consider any fair argument that a certain environmental effect may be significant.

(*Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1108-1109.)

Finally, just as the determination of significance is ultimately a “judgment call,” the analysis leading to that determination need not be perfect. The CEQA Guidelines describe the standard for adequacy of environmental analyses:

An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to **make a decision which intelligently takes account of environmental consequences**. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is **reasonably feasible**. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The **courts have looked not for perfection** but for **adequacy, completeness, and a good faith effort** at full disclosure.

⁵ Because the amount of a project’s VMT is needed (and is currently being used in practice) to assess the environmental impacts on a variety of resources (such as air quality, greenhouse gases, energy, and noise), qualitative analysis should only be applied when models or methods do not exist for undertaking a quantitative analysis.

(CEQA Guidelines, § 15151 (emphasis added).)

These general principles guide OPR's recommendations regarding thresholds of significance for VMT set forth below.

E. Recommendations Regarding Significance Thresholds

As noted above, lead agencies have the discretion to set or apply their own thresholds of significance. (*Center for Biological Diversity v. California Dept. of Fish & Wildlife* (2015) 62 Cal.4th 204, 218-223 [lead agency had discretion to use compliance with AB 32's emissions goals as a significance threshold]). However, Section 21099 of the Public Resources Code states that the criteria for determining the significance of transportation impacts must promote: (1) reduction of greenhouse gas emissions; (2) development of multimodal transportation networks; and (3) a diversity of land uses. It further directed OPR to provide guidance on criteria for determining significance. (Pub. Resources Code, § 21099, subd. (b)(1).) This section provides OPR's suggested thresholds, as well as considerations for lead agencies that choose to adopt their own thresholds.

Various legislative mandates and state policies establish quantitative greenhouse gas emissions reduction targets. For example:

- [Assembly Bill 32](#) (2006) requires statewide greenhouse gas reductions to 1990 levels by 2020 and continued reductions beyond 2020.
- [Senate Bill 32](#) (2016) requires at least a 40 percent reduction in greenhouse gas emissions by 2030.
- Pursuant to [Senate Bill 375](#) (2008), the California Air Resources Board establishes greenhouse gas reduction targets for metropolitan planning organizations (MPOs) to achieve based on land use patterns and transportation systems specified in Regional Transportation Plans and Sustainable Community Strategies. Current targets for the largest metropolitan planning organizations range from 13% to 16% reductions by 2035.
- [Executive Order B-30-15](#) (2015) sets a GHG emissions reduction target of 40 percent below 1990 levels by 2030.
- [Executive Order S-3-05](#) (2005) sets a GHG emissions reduction target of 80 percent below 1990 levels by 2050.
- [Executive Order B-16-12](#) (2012) specifies a GHG emissions reduction target of 80 percent below 1990 levels by 2050 specifically for transportation.
- [Senate Bill 391](#) requires the [California Transportation Plan](#) to support 80 percent reduction in GHGs below 1990 levels by 2050.

- The [California Air Resources Board Mobile Source Strategy](#) (2016) describes California’s strategy for containing air pollutant emissions from vehicles, and quantifies VMT growth compatible with achieving state targets.
- The California Air Resources Board’s [2017 Climate Change Scoping Plan Update: The Strategy for Achieving California’s 2030 Greenhouse Gas Target](#) describes California’s strategy for containing greenhouse gas emissions from vehicles, and quantifies VMT growth compatible with achieving state targets.

Considering these various targets, the California Supreme Court observed:

Meeting our statewide reduction goals does not preclude all new development. Rather, the Scoping Plan ... assumes continued growth and depends on increased efficiency and conservation in land use and transportation from all Californians.

(*Center for Biological Diversity v. California Dept. of Fish & Wildlife, supra*, 62 Cal.4th at p. 220.) Indeed, the Court noted that when a lead agency uses consistency with climate goals as a way to determine significance, particularly for long-term projects, the lead agency must consider the project’s effect on meeting long-term reduction goals. (*Ibid.*) And more recently, the Supreme Court stated that “CEQA requires public agencies . . . to ensure that such analysis stay in step with evolving scientific knowledge and state regulatory schemes.” (*Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 504.)

Meeting the targets described above will require substantial reductions in existing VMT per capita to curb greenhouse gases and other pollutants. But those targets do not translate directly into VMT thresholds for individual projects for many reasons, including:

- Some, but not all, of the emissions reductions needed to achieve those targets could be accomplished by other measures, including increased vehicle efficiency and decreased fuel carbon content. The CARB’s *First Update to the Climate Change Scoping Plan* explains: “Achieving California’s long-term criteria pollutant and GHG emissions goals will require four strategies to be employed: (1) improve vehicle efficiency and develop zero emission technologies, (2) reduce the carbon content of fuels and provide market support to get these lower-carbon fuels into the marketplace, (3) **plan and build communities to reduce vehicular GHG emissions and provide more transportation options, and (4) improve the efficiency and throughput of existing transportation systems.**” (CARB, *First Update to the Climate Change Scoping Plan*, May 2014, p. 46 (emphasis added).) In other words, vehicle efficiency and better fuels are necessary, but insufficient, to address the greenhouse gas emissions from the transportation system. Land use patterns and transportation options must also change to support reductions in vehicle travel/VMT.
- New land use projects alone will not sufficiently reduce per-capita VMT to achieve those targets, nor are they expected to be the sole source of VMT reduction.
- Interactions between land use projects, and also between land use and transportation projects, existing and future, together affect VMT.

- Because location within the region is the most important determinant of VMT, in some cases, streamlining CEQA review of projects in travel efficient locations may be the most effective means of reducing VMT.
- When assessing climate impacts of land use projects, use of an efficiency metric (e.g., per capita, per employee) may provide a better measure of impact than an absolute numeric threshold. (*Center for Biological Diversity, supra.*)

Public Resources Code section 21099 directs OPR to provide guidance on determining the significance of transportation impacts. While OPR’s guidance is not binding on public agencies, CEQA allows lead agencies to “consider thresholds of significance . . . recommended by other public agencies, provided the decision to adopt those thresholds is supported by substantial evidence.” (CEQA Guidelines, § 15064.7, subd. (c).) Based on OPR’s extensive review of the applicable research and literature on this topic, **OPR finds that in most instances a per capita or per employee VMT that is fifteen percent below that of existing development may be a reasonable threshold.**

First, as described above, Section 21099 states that the criteria for determining significance must “promote the reduction in greenhouse gas emissions.” SB 743 also states the Legislature’s intent that the analysis of transportation in CEQA better promotes the State’s goals of reducing greenhouse gas emissions. It cites in particular the reduction goals in the Global Warming Solutions Act (AB 32) and the Sustainable Communities and Climate Protection Act (SB 375), both of which call for substantial reductions. As indicated above, CARB established long-term [reduction targets](#) for the largest regions in the state that ranged from 13 to 16 percent.

Second, Caltrans has developed a statewide VMT reduction target in its [Strategic Management Plan](#). Specifically, it calls for a 15 percent reduction in per capita VMT, compared to 2010 levels, by 2020.

Third, fifteen percent reductions in VMT are achievable at the project level in a variety of place types. ([Quantifying Greenhouse Gas Measures](#), p. 55 CAPCOA, 2010).

Fourth, in CARB’s most recent update to the Climate Change Scoping Plan, a 15 percent reduction in light-duty VMT beyond what existing plan and policies achieve is recommended to achieve the State’s 2030 and 2050 targets. (CARB, [The 2017 Climate Change Scoping Plan: The Strategy for Achieving California’s 2030 Greenhouse Gas Target](#), October 2017, pp. 116, 150; see generally, CARB, [Climate Change Scoping Plan: A Framework for Change](#), December 2008, p. 27; CARB, [First Update to the Climate Change Scoping Plan](#), May 2014, p. 113; CARB, [The 2017 Climate Change Scoping Plan: The Strategy for Achieving California’s 2030 Greenhouse Gas Target](#), October 2017, p. 149.)

The current draft of the Scoping Plan states,

VMT reductions are necessary to achieve the 2030 target and must be part of any strategy evaluated in this plan. Stronger SB 375 GHG reduction targets will enable the State to make significant progress towards this goal, but alone will not provide all of the VMT growth reductions that will be needed. There is a gap between what SB 375 can provide and what is needed to meet the State’s 2030 and 2050 goals.” (CARB, [The 2017 Climate Change Scoping](#)

[Plan: The Strategy for Achieving California’s 2030 Greenhouse Gas Target](#), October 2017, p. 112.)

Furthermore,

At the State level, a number of important policies are being developed. Governor Brown signed Senate Bill 743 (Steinberg, 2013), which called for an update to the metric of transportation impact in the California Environmental Quality Act (CEQA). That update to the CEQA Guidelines is currently underway. Employing VMT as the metric of transportation impact statewide will help ensure GHG reductions planned under SB 375 will be achieved through on-the-ground development, and will also play an important role in creating the additional GHG reductions needed beyond SB 375 across the State.” (*Id.* at p. 112.)

....

Employing VMT as the metric of transportation impact statewide will help to ensure GHG reductions planned under SB 375 will be achieved through on-the-ground development, and will also play an important role in creating the additional GHG reductions needed beyond SB 375 across the State. Implementation of this change will rely, in part, on local land use decisions to reduce GHG emissions associated with the transportation sector, both at the project level, and in long-term plans (including general plans, climate action plans, specific plans, and transportation plans) and supporting sustainable community strategies developed under SB 375. The State can provide guidance and tools to assist local governments in achieving those objectives. (*Id.* at p. 113)

....

California’s future climate strategy will require increased focus on integrated land use planning to support livable, transit-connected communities, and conservation of agricultural and other lands. Accommodating population and economic growth through travel- and energy-efficient land use provides GHG-efficient growth, reducing GHGs from both transportation and building energy use. GHGs can be further reduced at the project level through implementing energy-efficient construction and travel demand management approaches. Further, the State’s understanding of transportation impacts continues to evolve. The CEQA Guidelines are being updated to focus the analysis of transportation impacts on VMT. OPR’s Technical Advisory includes methods of analysis of transportation impacts, approaches to setting significance thresholds, and includes examples of VMT mitigation under CEQA. (*Id.* at p. 153.)

Also, the Scoping Plan includes the following item as a “Recommended Action”: “forthcoming statewide implementation of SB 743.” (*Ibid.*)

Achieving 15 percent lower per capita (residential) or per employee (office) VMT than existing development is both generally achievable and is supported by evidence that connects this level of reduction to the State’s emissions goals. The following pages describe a series of screening thresholds below which a detailed analysis may not be required. Next, this advisory describes numeric thresholds

recommended for various project types. Finally, this advisory describes the analysis for certain unique circumstances.

1. Screening Thresholds for Land Use Projects

Many agencies use “screening thresholds” to quickly identify when a project should be expected to cause a less-than-significant impact without conducting a detailed study. (See e.g., CEQA Guidelines, §§ 15063(c)(3)(C), 15128, and Appendix G.) As explained below, this technical advisory suggests that lead agencies may screen out VMT impacts using project size, maps, and transit availability.

Screening Threshold for Small Projects

Many local agencies have developed screening thresholds to indicate when detailed analysis is needed. Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day⁶ generally may be assumed to cause a less-than-significant transportation impact.

Map-Based Screening for Residential and Office Projects

Residential and office projects that locate in areas with low VMT, and that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT. Maps created with data from a travel survey or travel demand model can illustrate areas that are currently below threshold VMT (see recommendations below). Because new development in such locations would likely result in a similar level of VMT, such maps can be used to screen out residential and office projects from needing to prepare a detailed VMT analysis.

⁶ CEQA provides a categorical exemption for existing facilities, including additions to existing structures of up to 10,000 square feet, so long as the project is in an area where public infrastructure is available to allow for maximum planned development and the project is not in an environmentally sensitive area. (CEQA Guidelines, § 15301, subd. (e)(2).) Typical project types for which trip generation increases relatively linearly with building footprint (i.e., general office building, single tenant office building, office park, and business park) generate or attract an additional 110-124 trips per 10,000 square feet. Therefore, absent substantial evidence otherwise, it is reasonable to conclude that the addition of 110 or fewer trips could be considered not to lead to a significant impact.

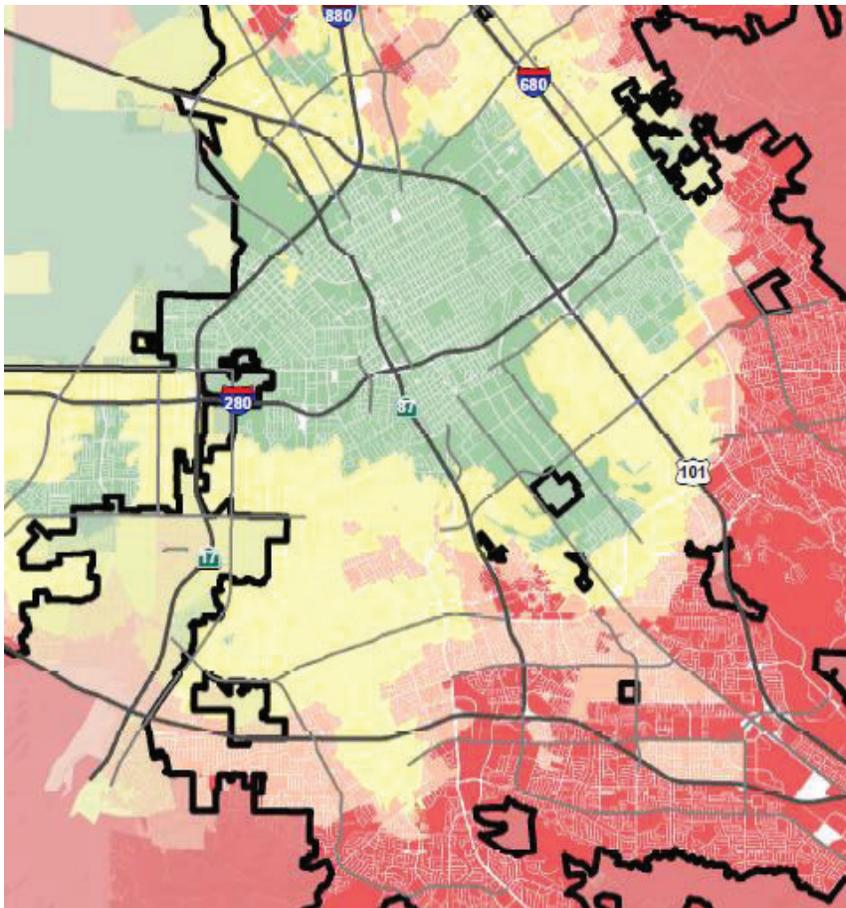


Figure 2. Example map of household VMT that could be used to delineate areas eligible to receive streamlining for VMT analysis. (Source: City of San José, Department of Transportation, draft output of City Transportation Model.)

Presumption of Less Than Significant Impact Near Transit Stations

Proposed CEQA Guideline Section 15064.3, subdivision (b)(1), states that lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within ½ mile of an existing major transit stop⁷ or an existing stop along a high quality transit corridor⁸ will have a less-than-significant impact on VMT. This presumption would not apply, however, if project-specific or location-specific information indicates that the project

⁷ Pub. Resources Code, § 21064.3 (“‘Major transit stop’ means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.”).

⁸ Pub. Resources Code, § 21155 (“For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.”).

will still generate significant levels of VMT. For example, the presumption might not be appropriate if the project:

- Has a Floor Area Ratio (FAR) of less than 0.75
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking)
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization)

If any of these exceptions to the presumption might apply, the lead agency should conduct a detailed VMT analysis to determine whether the project would exceed VMT thresholds (see below).

2. Recommended Numeric Thresholds for Residential, Office, and Retail Projects

Recommended threshold for residential projects: A proposed project exceeding a level of 15 percent below existing 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. Proposed development referencing city VMT per capita must not cumulatively exceed the number of units specified in the SCS for that city, and must be consistent with the SCS.

Residential development that would generate vehicle travel that is 15 or more percent below the existing residential VMT per capita, measured against the region or city, may indicate a less-than-significant transportation impact. In MPO areas, development measured against city VMT per capita (rather than regional VMT per capita) should not cumulatively exceed the population or number of units specified in the SCS for that city because greater-than-planned amounts of development in areas above the region-based threshold would undermine the VMT containment needed to achieve regional targets under SB 375.

For residential projects in unincorporated county areas, the local agency can compare a residential project's VMT to (1) the region's VMT per capita, or (2) the aggregate population-weighted VMT per capita of all cities in the region. In MPO areas, development in unincorporated areas measured against aggregate city VMT per capita (rather than regional VMT per capita) must not cumulatively exceed the population or number of units specified in the SCS for that city because greater-than-planned amounts of development in areas above the regional threshold would undermine achievement of regional targets under SB 375.

These thresholds can be applied to either household (i.e., tour-based) VMT or home-based (i.e., trip-based) VMT assessments.⁹ It is critical, however, that the agency be consistent in its VMT measurement

⁹ See Appendix 1 for a description of these approaches.

approach throughout the analysis to maintain an “apples-to-apples” comparison. For example, if the agency uses a home-based VMT for the threshold, it must also be use home-based VMT for calculating project VMT and VMT reduction due to mitigation measures.

Recommended threshold for office projects: A proposed project exceeding a level of 15 percent below existing regional VMT per employee may indicate a significant transportation impact.

Office projects that would generate vehicle travel exceeding 15 percent below existing VMT per employee for the region may indicate a significant transportation impact. In cases where the region is substantially larger than the geography over which most workers would be expected to live, it might be appropriate to refer to a smaller geography, such as the county, that includes the area over which nearly all workers would be expected to live.

Office VMT screening maps can be developed using tour-based data, considering either total employee VMT or employee work tour VMT. Similarly, tour-based analysis of office project VMT could consider either total employee VMT or employee work tour VMT. Where tour-based information is unavailable for threshold determination, project assessment, or assessment of mitigation, home-based work trip VMT should be used throughout all steps of the analysis to maintain an “apples-to-apples” comparison.

Recommended threshold for retail projects: A net increase in total VMT may indicate a significant transportation impact.

Because new retail development typically redistributes shopping trips rather than creating new trips,¹⁰ estimating the total change in VMT (i.e., the difference in total VMT in the area affected with and without the project) is the best way to analyze a retail project’s transportation impacts.

By adding retail opportunities into the urban fabric and thereby improving retail destination proximity, local-serving retail development tends to shorten trips and reduce VMT. Thus, lead agencies generally may presume such development creates a less-than-significant transportation impact. Regional-serving retail development, on the other hand, which can lead to substitution of longer trips for shorter ones, may tend to have a significant impact. Where such development decreases VMT, lead agencies should consider the impact to be less-than-significant.

Many cities and counties define local-serving and regional-serving retail in their zoning codes. Lead agencies may refer to those local definitions when available, but should also consider any project-specific information, such as market studies or economic impacts analyses that might bear on customers’ travel behavior. Because lead agencies will best understand their own communities and the likely travel behaviors of future project users, they are likely in the best position to decide when a

¹⁰ Lovejoy, et al., *Measuring the impacts of local land-use policies on vehicle miles of travel: The case of the first big-box store in Davis, California*, *The Journal of Transport and Land Use*, 2013.

project will likely be local-serving. Generally, however, retail development including stores larger than 50,000 square feet might be considered regional-serving, and so lead agencies should undertake an analysis to determine whether the project might increase or decrease VMT.

Mixed-Use Projects

Lead agencies can evaluate each component of a mixed-use project independently and apply the significance threshold for each project type included (e.g., residential and retail). Alternatively, a lead agency may consider only the project's dominant use. In the analysis of each use, a project should take credit for internal capture. Combining different land uses and applying one threshold to those land uses may result in an inaccurate impact assessment.

Other Project Types

Of land use projects, residential, office, and retail projects tend to have the greatest influence on VMT. For that reason, OPR recommends the quantified thresholds described above for purposes of analysis and mitigation. Lead agencies, using more location-specific information, may develop their own more specific thresholds, which may include other land use types. In developing thresholds for other project types, or thresholds different from those recommended here, lead agencies should consider the purposes described in section 21099 of the Public Resources Code and regulations in the CEQA Guidelines on the development of thresholds of significance (e.g., CEQA Guidelines, § 15064.7).

Strategies and projects that decrease local VMT but increase total VMT should be avoided. Agencies should consider whether their actions encourage development in a less travel-efficient location by limiting development in travel-efficient locations.

Redevelopment Projects

Where a project replaces existing VMT-generating land uses, if the replacement leads to a net overall decrease in VMT, the project would lead to a less-than-significant transportation impact. If the project leads to a net overall increase in VMT, then the thresholds described above should apply.

If a residential or office project leads to a net increase in VMT, then the project's VMT per capita (residential) or per employee (office) should be compared to thresholds recommended above. Per capita and per employee VMT are efficiency metrics, and, as such, apply only to the existing project without regard to the VMT generated by the previously existing land use.

If the project leads to a net increase in provision of locally-serving retail, transportation impacts from the retail portion of the development should be presumed to be less than significant. If the project consists of regionally-serving retail, and increases overall VMT compared to with existing uses, then the project would lead to a significant transportation impact.

RTP-SCS Consistency (All Land Use Projects)

Section 15125, subdivision (d), of the CEQA Guidelines provides that lead agencies should analyze impacts resulting from inconsistencies with regional plans, including regional transportation plans. For this reason, if a project is inconsistent with the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), the lead agency should evaluate whether that inconsistency indicates a significant impact on transportation.

3. Recommendations Regarding Land Use Plans

As with projects, agencies should analyze VMT outcomes of land use plans over the full area over which the plan may substantively affect travel patterns, including beyond the boundary of the plan or jurisdiction's geography. Analysis of specific plans may employ the same thresholds described above for projects. A general plan, area plan, or community plan may have a significant impact on transportation if it is not consistent with the relevant RTP-SCS.

Thresholds for plans in non-MPO areas may be determined on a case-by-case basis.

4. Other Considerations

Rural Projects Outside of MPOs

In rural areas of non-MPO counties (i.e., areas not near established or incorporated cities or towns), fewer options may be available for reducing VMT, and significance thresholds may be best determined on a case-by-case basis. Note, however, that clustered small towns and small town main streets may have substantial VMT benefits compared to isolated rural development, similar to the transit oriented development described above.

Impacts to Transit

Because criteria for determining the significance of transportation impacts must promote "the development of multimodal transportation networks," lead agencies should consider project impacts to transit systems and bicycle and pedestrian networks. For example, a project that blocks access to a transit stop or blocks a transit route itself may interfere with transit functions. Lead agencies should consult with transit agencies as early as possible in the development process, particularly for projects that are located within one half mile of transit stops.

When evaluating impacts to multimodal transportation networks, lead agencies generally should not treat the addition of new transit users as an adverse impact. An infill development may add riders to transit systems and the additional boarding and alighting may slow transit vehicles, but it also adds

destinations, improving proximity and accessibility. Such development also improves regional vehicle flow by adding less vehicle travel onto the regional network.

Increased demand throughout a region may, however, cause a cumulative impact by requiring new or additional transit infrastructure. Such impacts may be adequately addressed through a fee program that fairly allocates the cost of improvements not just to projects that happen to locate near transit, but rather across a region to all projects that impose burdens on the entire transportation system, since transit can broadly improve the function of the transportation system.

F. Considering the Effects of Transportation Projects on Vehicle Travel

Many transportation projects change travel patterns. A transportation project which leads to additional vehicle travel on the roadway network, commonly referred to as “induced vehicle travel,” must quantify the amount of additional vehicle travel in order to assess air quality impacts, greenhouse gas emissions impacts, energy impacts, and noise impacts. Transportation projects must also examine induced growth impacts under CEQA. (See generally, Pub. Resources Code, §§ 21065 [defining “project” under CEQA as an activity as causing either a direct or reasonably foreseeable indirect physical change], 21065.3 [defining “project-specific effect” to mean all direct or indirect environmental effects], 21100, subd. (b) [required contents of an EIR].) For any project that increases vehicle travel, explicit assessment and quantitative reporting of the amount of additional vehicle travel should not be omitted from the document; such information may be useful and necessary for a full understanding of a project’s environmental impacts. (See Pub. Resources Code, §§ 21000, 21001, 21001.1, 21002, 21002.1 [discussing the policies of CEQA].) A lead agency that uses the VMT metric to assess the transportation impacts of a transportation project may simply report that change in VMT as the impact. When the lead agency uses another metric to analyze the transportation impacts of a roadway project, changes in amount of vehicle travel added to the roadway network should still be analyzed and reported. (See, e.g., California Department of Transportation, [Guidance for Preparers of Growth-related, Indirect Impact Analyses](#) (2006).)

While CEQA does not require perfection, it is important to make a reasonably accurate estimate of transportation projects’ effects on vehicle travel in order to make reasonably accurate estimates of GHG emissions, air quality emissions, energy impacts, and noise impacts. (See, e.g., *California Clean Energy Com. v. City of Woodland* (2014) 225 Cal.App.4th 173, 210 [EIR failed to consider project’s transportation energy impacts]; *Ukiah Citizens for Safety First v. City of Ukiah* (2016) 248 Cal.App.4th 256, 266.) Appendix 2 describes in detail the causes of induced vehicle travel, the robust empirical evidence of induced vehicle travel, and how models and research can be used in conjunction to quantitatively assess induced vehicle travel with reasonable accuracy.

If a project would likely lead to a measurable and substantial increase in vehicle travel, the lead agency should conduct an analysis assessing the amount of vehicle travel the project will induce. Project types that would likely lead to a measurable and substantial increase in vehicle travel generally include:

- Addition of through lanes on existing or new highways, including general purpose lanes, HOV lanes, peak period lanes, auxiliary lanes, or lanes through grade-separated interchanges

Projects that would not likely lead to a substantial or measurable increase in vehicle travel, and therefore generally should not require an induced travel analysis, include:

- Rehabilitation, maintenance, replacement and repair projects designed to improve the condition of existing transportation assets (e.g., highways, roadways, bridges, culverts, tunnels, transit systems, and assets that serve bicycle and pedestrian facilities) and that do not add additional motor vehicle capacity
- Roadway shoulder enhancements to provide “breakdown space,” dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes
- Addition of an auxiliary lane of less than one mile in length designed to improve roadway safety
- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, or emergency breakdown lanes that are not utilized as through lanes
- Addition of roadway capacity on local or collector streets provided the project also substantially improves conditions for pedestrians, cyclists, and, if applicable, transit
- Conversion of existing general purpose lanes (including ramps) to managed lanes or transit lanes, or changing lane management in a manner that would not substantially increase vehicle travel
- Addition of a new lane that is permanently restricted to use only by transit vehicles
- Reduction in number of through lanes
- Grade separation to separate vehicles from rail, transit, pedestrians or bicycles, or to replace a lane in order to separate preferential vehicles (e.g., HOV, HOT, or trucks) from general vehicles
- Installation, removal, or reconfiguration of traffic control devices, including Transit Signal Priority (TSP) features
- Traffic metering systems
- Timing of signals to optimize vehicle, bicycle, or pedestrian flow
- Installation of roundabouts or traffic circles
- Installation or reconfiguration of traffic calming devices
- Adoption of or increase in tolls
- Addition of tolled lanes, where tolls are sufficient to mitigate VMT increase
- Initiation of new transit service
- Conversion of streets from one-way to two-way operation with no net increase in number of traffic lanes
- Removal or relocation of off-street or on-street parking spaces
- Adoption or modification of on-street parking or loading restrictions (including meters, time limits, accessible spaces, and preferential/reserved parking permit programs)
- Addition of traffic wayfinding signage

- Rehabilitation and maintenance projects that do not add motor vehicle capacity
- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way
- Addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve non-motorized travel
- Installation of publicly available alternative fuel/charging infrastructure
- Addition of passing lanes in rural areas that do not increase overall vehicle capacity along the corridor

1. Recommended Significance Threshold for Transportation Projects

As noted in Section 15064.3 of the CEQA Guidelines, lead agencies for roadway capacity projects have discretion, consistent with CEQA and planning requirements, to choose which metric to use to evaluate transportation impacts. This section recommends considerations for evaluating impacts using vehicle miles traveled. Lead agencies have discretion to choose a threshold of significance for transportation projects. As explained above, Public Resources Code section 21099, subdivision (b)(1), provides that criteria for evaluating transportation impacts must promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.

Whether adopting a threshold of significance, or evaluating transportation impacts on a case-by-case basis, a lead agency should ensure that the analysis addresses:

- Direct, indirect and cumulative effects of the transportation project (CEQA Guidelines, § 15064, subs. (d), (h))
- Near-term and long-term effects of the transportation project (CEQA Guidelines, §§ 15063, subd. (a)(1), 15126.2, subd. (a))
- The transportation project's consistency with state greenhouse gas reduction goals (Pub. Resources Code, § 21099)¹¹
- The impact of the transportation project on the development of multimodal transportation networks (Pub. Resources Code, § 21099)
- The impact of the transportation project on the development of a diversity of land uses (Pub. Resources Code, § 21099)

¹¹ The Air Resources Board has ascertained, in [The 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target](#) (p. 116) and [Mobile Source Strategy](#) (p. 37), the limits of VMT growth compatible with California containing greenhouse gas emissions to levels research shows would allow for climate stabilization. The [Staff Report on Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets](#) (Figure 1, p. 10, and Figure 2, p. 23), illustrates that Regional Transportation Plans and Sustainable Communities Strategies will fall short of achieving GHG reductions research says is needed to achieve climate stabilization, so OPR recommends not basing transportation project thresholds on those documents.

The recommendations in this technical advisory may be updated over time.

2. Estimating VMT Impacts from Transportation Projects

CEQA requires analysis of a project's potential growth-inducing impacts. (Pub. Resources Code, § 21100, subd. (b)(5); CEQA Guidelines, § 15126.2, subd. (d).) Many agencies are familiar with the analysis of growth inducing impacts associated with water, sewer, and other infrastructure. This technical advisory addresses growth that may be expected from roadway expansion projects.

Because a roadway expansion project can induce substantial VMT, incorporating quantitative estimates of induced VMT is critical to calculating both transportation and other impacts of these projects. Induced travel also has the potential to reduce or eliminate congestion relief benefits. An accurate estimate of induced travel is needed to accurately weigh costs and benefits of a highway capacity expansion project.

The effect of a transportation project on vehicle travel should be estimated using the "change in total VMT" method described in *Appendix 1*. This means that an assessment of total VMT without the project and an assessment with the project should be made; the difference between the two is the amount of VMT attributable to the project. The assessment should cover the full area in which driving patterns are expected to change. As with other types of projects, the VMT estimation should not be truncated at a modeling or jurisdictional boundary for convenience of analysis when travel behavior is substantially affected beyond that boundary.

Transit and Active Transportation Projects

Transit and active transportation projects generally reduce VMT and therefore are presumed to cause a less-than-significant impact on transportation. This presumption may apply to all passenger rail projects, bus and bus rapid transit projects, and bicycle and pedestrian infrastructure projects. Streamlining transit and active transportation projects aligns with each of the three statutory goals contained in SB 743 by reducing GHG emissions, increasing multimodal transportation networks, and facilitating mixed use development.

Roadway Projects

Reducing roadway capacity (for example, by removing or repurposing motor vehicle travel lanes) will generally reduce VMT and therefore is presumed to cause a less-than-significant impact on transportation. Generally, no transportation analysis is needed for such projects.

Building new roadways, adding roadway capacity in congested areas, or adding roadway capacity to areas where congestion is expected in the future, typically induces additional vehicle travel. For the types of projects previously indicated as likely to lead to additional vehicle travel, an estimate should be made of the change in vehicle travel resulting from the project.

For projects that increase roadway capacity, lead agencies can evaluate induced travel quantitatively by applying the results of existing studies that examine the magnitude of the increase of VMT resulting from a given increase in lane miles. These studies estimate the percent change in VMT for every percent change in miles to the roadway system (i.e., “elasticity”). (See U.C. Davis, Institute for Transportation Studies, [Increasing Highway Capacity Unlikely to Relieve Traffic Congestion](#), (October 2015); Boarnet and Handy, [Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions](#), California Air Resources Board Policy Brief, September 30, 2014.) Given that lead agencies have discretion in choosing their methodology, and the studies on induced travel reveal a range of elasticities, lead agencies may appropriately apply professional judgment in studying the transportation effects of a particular project. The most recent major study ([Duranton and Turner, 2011](#)), estimates an elasticity of 1.0, meaning that every percent change in lane miles results in a one percent increase in VMT.

To estimate VMT impacts from roadway expansion projects:

1. Determine the total lane-miles over an area that fully captures travel behavior changes resulting from the project (generally the region, but for projects affecting interregional travel look at all affected regions).
2. Determine the percent change in total lane miles that will result from the project.
3. Determine the total existing VMT over that same area.
4. Multiply the percent increase in lane miles by the existing VMT, and then multiply that by the elasticity from the induced travel literature:

$$[\% \text{ increase in lane miles}] \times [\text{existing VMT}] \times [\text{elasticity}] = [\text{VMT resulting from the project}]$$

This method would not be suitable for rural (non-MPO) locations in the state which are neither congested nor projected to become congested. It also may not be suitable for a new road that provides new connectivity across a barrier (e.g., a bridge across a river) if it would be expected to substantially shorten existing trips. If it is likely to be substantial, the trips-shortening effect should be examined explicitly.

The effects of roadway capacity on vehicle travel can also be applied at a programmatic level. For example, in a regional planning process the lead agency can use that program-level analysis to streamline later project-level analysis. (See CEQA Guidelines, § 15168.) A program-level analysis of VMT should include effects of the program on land use patterns, and the VMT that results from those land use effects. In order for a program-level document to adequately analyze potential induced demand from a project or program of roadway capacity expansion, lead agencies cannot assume a fixed land use pattern (i.e., a land use pattern that does not vary in response to the provision of roadway capacity). A proper analysis should account for land use investment and development pattern changes that react in a

reasonable manner to changes in accessibility created by transportation infrastructure investments (whether at the project or program level).

Mitigation and Alternatives

Induced VMT has the potential to reduce or eliminate congestion relief benefits, increase VMT, and increase other environmental impacts that result from vehicle travel.¹² If those effects are significant, the lead agency will need to consider mitigation or alternatives. In the context of increased travel that is induced by capacity increases, appropriate mitigation and alternatives that a lead agency might consider include the following:

- Tolling new lanes to encourage carpools and fund transit improvements
- Converting existing general purpose lanes to HOV or HOT lanes
- Implementing or funding off-site travel demand management
- Implementing Intelligent Transportation Systems (ITS) strategies to improve passenger throughput on existing lanes

Tolling and other management strategies can have the additional benefit of preventing congestion and maintaining free-flow conditions, conferring substantial benefits to road users as discussed above.

G. Analyzing Other Impacts Related to Transportation

While requiring a change in the methodology of assessing transportation impacts, Public Resources Code section 21099 notes that this change “does not relieve a public agency of the requirement to analyze a project’s potentially significant transportation impacts related to air quality, noise, safety, or any other impact associated with transportation.” OPR expects that lead agencies will continue to address mobile source emissions in the air quality and noise sections of an environmental document and the corresponding studies that support the analysis in those sections. Lead agencies should continue to address environmental impacts of a proposed project pursuant to CEQA’s requirements, using a format that is appropriate for their particular project.

Because safety concerns result from many different factors, they are best addressed at a programmatic level (i.e., in a general plan or regional transportation plan) in cooperation with local governments, metropolitan planning organizations, and, where the state highway system is involved, the California Department of Transportation. In most cases, such an analysis would not be appropriate on a project-by-project basis. Increases in traffic volumes at a particular location resulting from a project typically

¹² See *Increasing Highway Capacity Unlikely to Relieve Traffic Congestion*, National Center for Sustainable Transportation, October 2015, available at http://www.dot.ca.gov/newtech/researchreports/reports/2015/10-12-2015-NCST_Brief_InducedTravel_CS6_v3.pdf; see Duranton and Turner, *The Fundamental Law of Road Congestion: Evidence from US cities*, 2011, available at <http://www.nber.org/papers/w15376>.

cannot be estimated with sufficient accuracy or precision to provide useful information for an analysis of safety concerns. Moreover, an array of factors affect travel demand (e.g., strength of the local economy, price of gasoline), causing substantial additional uncertainty. Appendix B of the [General Plan Guidelines](#) summarizes research which could be used to guide a programmatic analysis under CEQA. Lead agencies should note that automobile congestion or delay does not constitute a significant environmental impact (Pub. Resources Code, §21099(b)(2)), and safety should not be used as a proxy for road capacity.

H. VMT Mitigation and Alternatives

When a lead agency identifies a significant impact, it must identify feasible mitigation measures that could avoid or substantially reduce that impact. Additionally, CEQA requires that an environmental impact report identify feasible alternatives that could avoid or substantially reduce a project's significant environmental impacts.

Indeed, the California Court of Appeal recently held that a long-term regional transportation plan was deficient for failing to discuss an alternative which could significantly reduce total vehicle miles traveled. In *Cleveland National Forest Foundation v. San Diego Association of Governments, et al.* (Nov. 16, 2017, D063288) __Cal.App.5th__, the court found that omission "inexplicable" given the lead agency's "acknowledgment in its Climate Action Strategy that the state's efforts to reduce greenhouse gas emissions from on-road transportation will not succeed if the amount of driving, or vehicle miles traveled, is not significantly reduced." (Slip Op., p. 25.) Additionally, the court noted that the project alternatives focused primarily on congestion relief even though "the [regional] transportation plan is a long-term and congestion relief is not necessarily an effective long-term strategy." (Slip Op., p. 26.) The court concluded its discussion of the alternatives analysis by stating: "Given the acknowledged long-term drawbacks of congestion relief alternatives, there is not substantial evidence to support the EIR's exclusion of an alternative focused primarily on significantly reducing vehicle trips." (Slip Op., p. 27.)

Several examples of potential mitigation measures and alternatives to reduce vehicle miles traveled are described below. However, the selection of particular mitigation measures and alternatives are left to the discretion of the lead agency. Further, OPR expects that agencies will continue to innovate and find new ways to reduce vehicular travel.

Potential measures to reduce vehicle miles traveled include, but are not limited to:

- Improve or increase access to transit.
- Increase access to common goods and services, such as groceries, schools, and daycare.
- Incorporate affordable housing into the project.
- Incorporate neighborhood electric vehicle network.
- Orient the project toward transit, bicycle and pedestrian facilities.
- Improve pedestrian or bicycle networks, or transit service.

- Provide traffic calming.
- Provide bicycle parking.
- Limit or eliminate parking supply.
- Unbundle parking costs.
- Provide parking or roadway pricing or cash-out programs.
- Implement or provide access to a commute reduction program.
- Provide car-sharing, bike sharing, and ride-sharing programs.
- Provide transit passes.
- Shifting single occupancy vehicle trips to carpooling or vanpooling, for example providing ride-matching services.
- Providing telework options.
- Providing incentives or subsidies that increase the use of modes other than single-occupancy vehicle.
- Providing on-site amenities at places of work, such as priority parking for carpools and vanpools, secure bike parking, and showers and locker rooms.
- Providing employee transportation coordinators at employment sites.
- Providing a guaranteed ride home service to users of non-auto modes.

Notably, 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 actually occur. (*Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 140-141; *Gentry v. City of Murrieta* (1995) 36 Cal.App.4th 1359; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 727–728.) Fee programs are particularly useful to address cumulative impacts. (CEQA Guidelines, § 15130, subd. (a)(3) [a “project’s incremental contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact”].) The mitigation program must undergo CEQA evaluation, either on the program as a whole, or the in-lieu fees or other mitigation must be evaluated on a project-specific basis. (*California Native Plant Society v. County of El Dorado* (2009) 170 Cal.App.4th 1026.) That CEQA evaluation could be part of a larger program, such as a regional transportation plan, analyzed in a Program EIR. (CEQA Guidelines, § 15168.)

Examples of project alternatives that may reduce vehicle miles traveled include, but are not limited to:

- Locate the project in an area of the region that already exhibits low VMT.
- Locate the project near transit.
- Increase project density.
- Increase the mix of uses within the project or within the project’s surroundings.
- Increase connectivity and/or intersection density on the project site.
- Deploy management strategies (e.g., pricing, vehicle occupancy requirements) on roadways or roadway lanes.

Appendix 1. Considerations About Which VMT to Count

Consistent with the obligation to make a good faith effort to disclose the environmental consequences of a project, lead agencies have discretion to choose the most appropriate methodology to evaluate project impacts.¹³ A lead agency can evaluate a project's effect on VMT in numerous ways. The purpose of this document is to provide technical considerations in determining which methodology may be most useful for various project types.

Background on Estimating Vehicle Miles Traveled

Before discussing specific methodological recommendations, this section provides a brief overview of modeling and counting VMT, including some key terminology.

Here is an illustrative example of some methods of estimating vehicle miles traveled. Consider the following hypothetical travel day (all by automobile):

1. Residence to Coffee Shop
2. Coffee Shop to Work
3. Work to Sandwich Shop
4. Sandwich Shop to Work
5. Work to Residence
6. Residence to Store
7. Store to Residence

Trip-based assessment of a project's effect on travel behavior counts VMT from individual trips to and from the project. It is the most basic, and traditionally the most common, method of counting VMT. A trip-based VMT assessment of the residence in the above example would consider segments 1, 5, 6 and 7. For residential projects, the sum of home-based trips is called *home-based* VMT.

A *tour-based* assessment counts the entire home-back-to-home tour that includes the project. A tour-based VMT assessment of the residence in the above example would consider segments 1, 2, 3, 4, and 5 in one tour, and 6 and 7 in a second tour. A tour-based assessment of the workplace would include segments 1, 2, 3, 4, and 5. Together, all tours comprise *household* VMT.

¹³ The California Supreme Court has explained that when an agency has prepared an environmental impact report:

[T]he issue is not whether the [lead agency's] studies are irrefutable or whether they could have been better. The relevant issue is only whether the studies are sufficiently credible to be considered as part of the total evidence that supports the [lead agency's] finding[.]

(*Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 409; see also *Eureka Citizens for Responsible Gov't v. City of Eureka* (2007) 147 Cal.App.4th 357, 372.)

Both trip- and tour-based assessments can be used as measures of transportation efficiency, using denominators such as per capita, per employee, or per person-trip.

Trip- and Tour-based Assessment of VMT

As illustrated above, a tour-based assessment of VMT is a more complete characterization of a project's effect on VMT. In many cases, a project affects travel behavior beyond the first destination. The location and characteristics of the home and workplace will often be the main drivers of VMT. For example, a residential or office development located near high quality transit will likely lead to some commute trips utilizing transit, affecting mode choice on the rest of the tour.

Characteristics of an office project can also affect an employee's VMT beyond the work tour. For example, a workplace located at the urban periphery, far from transit, can require an employee to own a car, which in turn affects the entirety of an employee's travel behavior and VMT. For this reason, when estimating the effect of an office development on VMT, it may be appropriate to consider total employee VMT if data and tools, such as tour-based models, are available. This is consistent with CEQA's requirement to evaluate both direct and *indirect* effects of a project. (See CEQA Guidelines, § 15064, subd. (d)(2).)

Assessing Change in Total VMT

A third method, estimating the *change in total VMT* with and without the project, can evaluate whether a project is likely to divert existing trips, and what the effect of those diversions will be on total VMT. This method answers the question, "What is the net effect of the project on area VMT?" As an illustration, assessing the total change in VMT for a grocery store built in a food desert that diverts trips from more distant stores could reveal a net VMT reduction. The analysis should address the full area over which the project affects travel behavior, even if the effect on travel behavior crosses political boundaries.

Using Models to Estimate VMT

Travel demand models, sketch models, spreadsheet models, research, and data can all be used to calculate and estimate VMT (see Appendix F of the [preliminary discussion draft](#)). To the extent possible, lead agencies should choose models that have sensitivity to features of the project that affect VMT. Those tools and resources can also assist in establishing thresholds of significance and estimating VMT reduction attributable to mitigation measures and project alternatives. When using models and tools for those various purposes, agencies should use comparable data and methods, in order to set up an "apples-to-apples" comparison between thresholds, VMT estimates, and VMT mitigation estimates.

Models can work together. For example, agencies can use travel demand models or survey data to estimate existing trip lengths and input those into sketch models such as CalEEMod to achieve more

accurate results. Whenever possible, agencies should input localized trip lengths into a sketch model to tailor the analysis to the project location. However, in doing so, agencies should be careful to avoid double counting if the sketch model includes other inputs or toggles that are proxies for trip length (e.g., distance to city center). Generally, if an agency changes any sketch model defaults, it should record and report those changes for transparency of analysis. Again, trip length data should come from the same source as data used to calculate thresholds to be sure of an “apples-to-apples” comparison.

Additional background information regarding travel demand models is available in the California Transportation Commission’s [“2010 Regional Transportation Plan Guidelines,”](#) beginning at page 35.

Appendix 2. Induced Travel: Mechanisms, Research, and Additional Assessment Approaches

Induced travel occurs where roadway capacity is expanded in an area of present or projected future congestion. The effect typically manifests over several years. Lower travel times make the modified facility more attractive to travelers, resulting in the following trip-making changes:

- **Longer trips.** The ability to travel a long distance in a shorter time increases the attractiveness of destinations that are farther away, increasing trip length and vehicle travel.
- **Changes in mode choice.** When transportation investments are devoted to reducing automobile travel time, travelers tend to shift toward automobile use from other modes, which increases vehicle travel.
- **Route changes.** Faster travel times on a route attract more drivers to that route from other routes, which can increase or decrease vehicle travel depending on whether it shortens or lengthens trips.
- **Newly generated trips.** Increasing travel speeds can induce additional trips, which increases vehicle travel. For example, an individual who previously telecommuted or purchased goods on the internet might choose to accomplish those tasks via automobile trips as a result of increased speeds.
- **Land Use Changes.** Faster travel times along a corridor lead to land development farther along that corridor; that new development generates and attracts longer trips, which increases vehicle travel. Over several years, this induced growth component of induced vehicle travel can be substantial, making it critical to include in analyses.

Each of these effects has implications for the total amount of vehicle travel. These effects operate over different time scales. For example, changes in mode choice might occur immediately, while land use changes typically take a few years or longer. CEQA requires lead agencies to analyze both short-term and long-term effects.

Evidence of Induced Vehicle Travel. A large number of peer reviewed studies¹⁴ have demonstrated a causal link between highway capacity increases and VMT increases. Many provide quantitative estimates of the magnitude of the induced VMT phenomenon. Collectively, they provide high quality evidence of the existence and magnitude of the induced travel effect.

Most of these studies express the amount of induced vehicle travel as an “elasticity,” which is a multiplier that describes the additional vehicle travel resulting from an additional lane mile of roadway capacity added. For example, an elasticity of 0.6 would signify an 0.6 percent increase in vehicle travel for every 1.0 percent increase in lane miles. Many of these studies distinguish “short run elasticity” (increase in vehicle travel in the first few years) from “long run elasticity” (increase in vehicle travel

¹⁴ See, for example, [Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions: Policy Brief](#) (CARB, Sept. 30, 2014) and [Increasing Highway Capacity Unlikely to Relieve Traffic Congestion](#) (National Center for Sustainable Transportation, Oct. 2015).

beyond the first few years). Long run elasticity is larger than short run elasticity, because as time passes, more of the components of induced vehicle travel materialize. Generally, short run elasticity can be thought of as excluding the effects of land use change, while long run elasticity includes them. Most studies find a long run elasticity between 0.6 and just over 1.0 (See [Impact of Highway Capacity and Induced Travel on Passenger Vehicle Use and Greenhouse Gas Emissions: Policy Brief](#), p. 2.), meaning that every increase in lanes miles of one percent leads to an increase in vehicle travel of 0.6 to 1.0 percent. The most recent major study (Duranton and Turner, [The Fundamental Law of Road Congestion: Evidence from US Cities](#), 2011) finds the elasticity of vehicle travel by lanes miles added to be 1.03; in other words, each percent increase in lane miles results in a 1.03 percent increase in vehicle travel. (An elasticity greater than 1.0 can occur because new lanes induce vehicle travel that spills beyond the project location.) In CEQA analysis, the long-run elasticity should be used, as it captures the full effect of the project rather than just the early-stage effect.

Quantifying Induced Vehicle Travel Using Models. Lead agencies can generally achieve the most accurate assessment of induced vehicle travel resulting from roadway capacity increasing projects by applying elasticities from the academic literature, because those estimates include vehicle travel resulting from induced land use. If a lead agency chooses to use a travel demand model, additional analysis would be needed to account for induced land use. This section describes some approaches to undertaking that additional analysis.

Proper use of a travel demand model can capture the following components of induced VMT:

- Trip length (generally increases VMT)
- Mode shift (generally shifts from other modes toward automobile use, increasing VMT)
- Route changes (can act to increase or decrease VMT)
- Newly generated trips (generally increases VMT)
 - Note that not all travel demand models have sensitivity to this factor, so an off-model estimate may be necessary if this effect could be substantial.

However, estimating long-run induced VMT also requires an estimate of the project's effects on land use. This component of the analysis is important because it has the potential to be a large component of the overall induced travel effect. Options for estimating and incorporating the VMT effects that are caused by the subsequent land use changes include:

1. *Employ an expert panel.* An expert panel could assess changes to land use development that would likely result from the project. This assessment could then be analyzed by the travel demand model to assess effects on vehicle travel. Induced vehicle travel assessed via this approach should be verified using elasticities found in the academic literature.
2. *Adjust model results to align with the empirical research.* If the travel demand model analysis is performed without incorporating projected land use changes resulting from the project, the

assessed vehicle travel should be adjusted upward to account for those land use changes. The assessed VMT after adjustment should fall within the range found in the academic literature.

3. *Employ a land use model, running it iteratively with a travel demand model.* A land use model can be used to estimate the land use effects of a roadway capacity increase, and the traffic patterns that result from the land use change can then be fed back into the travel demand model. The land use model and travel demand model can be iterated to produce an accurate result.

A project which provides new connectivity across a barrier, such as a new bridge across a river, may provide a shortened path between existing origins and destinations, thereby shortening existing trips. In some cases, this trip-shortening effect might be substantial enough to reduce the amount of vehicle travel resulting from the project below the range found in the elasticities in the academic literature, or even lead a net reduction in vehicle travel overall. In such cases, the trip-shortening effect could be examined explicitly.

Whenever employing a travel demand model to assess induced vehicle travel, any limitation or known lack of sensitivity in the analysis that might cause substantial errors in the VMT estimate (for example, model insensitivity to one of the components of induced VMT described above) should be disclosed and characterized, and a description should be provided on how it could influence the analysis results. A discussion of the potential error or bias should be carried into analyses that rely on the VMT analysis, such as greenhouse gas emissions, air quality, energy, and noise.