



Planning, Policy  
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Shifting from LOS to VMT as the Measure of Transportation Impacts: Evaluating Prospects for Implementing Senate Bill 743

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## Shifting from LOS to VMT as the Measure of Transportation Impact Assessment

Senate Bill 743 Implementation: Challenges and Opportunities

### WHAT IS THE NEED?

California's Senate Bill (SB) 743, passed in 2013, enacts a historic shift in how the transportation impacts of development projects must be evaluated and mitigated. SB 743 eliminates the requirement to count traffic delay (measured using "Level of Service" or LOS standards) as an environmental impact under the California Environmental Quality Act (CEQA). SB 743 requires that a new metric be adopted when evaluating those impacts, to better align with state climate policy and sustainability goals. The new metric recommended in state-level guidance is vehicle miles traveled (VMT). The overall level of auto use, as measured using VMT, is much more closely related to carbon emissions and air pollution than local traffic levels are.

The primary focus of this study was to investigate the challenges and opportunities that local governments anticipate in implementing SB 743. The researchers also examined patterns of existing land use across and within cities in relation to state-recommended analytical thresholds for determining significant VMT impacts, and identified some practical challenges of developing workable, accurate, and acceptably consistent VMT analysis techniques across the state.

### WHAT WAS OUR GOAL?

There were three goals for this project:

1. Through interviews, to identify perceived opportunities associated with the move to VMT analysis, as well as potential challenges and best practices to address those



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- challenges;
2. To analyze how VMT levels across and within California cities compare to threshold levels determined by state guidelines; and
  3. To test and compare commonly used VMT estimation methods, in order to identify practical challenges that users might encounter.

## WHAT DID WE DO?

The research consisted of five parts:

1. Analysis of policy issues and history pertinent to adoption and implementation of SB 743.
2. Interviews of CEQA practitioners to identify perceived practical, technical, legal, and policy-related opportunities for and challenges to local implementation of SB 743.
3. In-depth case studies of two early adopter cities, San Francisco and Pasadena, that enacted SB 743 implementation policies including new financing and planning strategies to promote multimodal transport and efficient development.
4. Analysis of VMT patterns across and within California communities in relation to state-recommended thresholds for determining where stringent analysis and mitigation are required.
5. Evaluation of two common tools for estimating VMT impacts of development projects, focusing on practical challenges to applying them.

## WHAT WAS THE OUTCOME?

There are both important opportunities and transitional challenges in the move from LOS to VMT for transportation impact analysis under CEQA.

### Transitional Challenges

- VMT estimation analysis is technically less difficult than LOS analysis, but practical approaches for estimating effects of VMT mitigation may take some time to become widely disseminated and standardized, according to transportation consultants and planners interviewed for the project.
- There is substantial within-city variation in VMT patterns, including near transit. Even transit proximity provides no guarantee of low VMT. This suggests all cities will need to evaluate their territories carefully to determine how to apply appropriate significance thresholds.
- There is regional variation in projected housing growth patterns, with implications for SB 743 implementation. The Los Angeles and Sacramento regions have targeted more growth to cities that currently have high per capita VMT. The San Francisco and San Diego regions have done the opposite, targeting growth toward higher-density, lower-VMT cities. These regions may find SB 743 easier to implement because less VMT mitigation may be legally required.
- Practitioners must select among a range of available tools and methods for VMT analysis. According to our interviews, the methods that cities choose are likely to vary according to the type of project, existing development patterns, and planning and technical resources. Some interviewees voiced concerns about insufficient resources to develop new planning and finance strategies to support SB 743 analysis.
- The VMT estimation tools we tested produced results that varied greatly depending on a number of locally contextual factors. Practical challenges for using the tools may complicate work for lay practitioners. More research on tool use is warranted to determine which tools might be considered preferable and for what purpose.

### Opportunities and Best Practices

- In the short run, the impacts of SB 743 upon transportation planning may be relatively small, as cities move deliberately over time toward adopting new techniques to comply with the law, and because cities already estimate VMT for multiple purposes in environmental documents, such as for GHG emissions analysis.
- Over the longer term, SB 743 can be expected to more substantially affect local transportation plans and policies across the state. Our interviews suggest that the new requirements are likely to prompt discussion and revision of many existing strategies. This process may resemble how LOS analysis techniques evolved over decades in the state, becoming embedded as standard practice not just for transportation analysis but also for the financing of associated mitigations.
- SB 743 heralds and supports a major shift in focus for transportation planning and analysis. In some cities that view LOS standards as impeding infill development and multimodal transport, this move already aligns with and will provide further support for their existing goals and policies. For others, SB 743 may prompt a reassessment of transportation goals, plans, and programs. To the degree that SB 743 causes cities to revisit their planning approaches in order to support more efficient travel, SB 743 could promote better planning and financing of multimodal transportation.
- Innovator cities have developed policies for implementing SB 743 that other cities can consider for their own use. San Francisco developed a streamlined, “up-front” policy and finance approach that integrates transport facility planning with VMT analysis and mitigation for land use projects. Pasadena adopted a system to connect plan-level with project-level analysis and mitigation, in which a range of impacts could be measured including traffic delay. San Jose developed a new

sketch tool for analyzing VMT and associated mitigation impacts in varied settings.

- Cities’ choices of tools and policy techniques will likely vary depending on the extent to which their land use patterns conform to recommended state thresholds of significance. Planners in cities with large swathes of contiguous territory falling below the recommended significance thresholds expressed more interest in using map-based screening techniques. Planners in other cities were more likely to be interested in developing sketch tools for project-level VMT analysis and mitigation impact evaluation that are versatile enough to be applied under varying conditions.

## WHAT IS THE BENEFIT?

This research helps state and local policy makers and planners understand the likely challenges and opportunities of SB 743 implementation in cities across the state. It covers issues including the selection of technical tools and methods, different approaches for determining significance thresholds for analysis, and methods to effectively link project-level analysis and mitigation to plan-level analysis and mitigation. It also describes topics and concerns identified by local planners that state and regional agencies may be able to help them address.



## IMAGES



Picture 1: State Route 28 in Sunnyside Tahoe City



Picture 2: Isla Vista from Wikimedia commons

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