

Reducing vehicle miles in the region by investing in Transportation Management Organizations

Proposal for SCAG VMT Exchange Study | June 14, 2018

Presenters

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Prepared for a workshop & public presentation on VMT reduction exchanges as a CEQA mitigation strategy (Thursday, June 14, Los Angeles). Event organized as part of the SB 743 Implementation Assistance Project – a collaboration among three California state agencies (OPR, CalSTA, Caltrans), five MPOs (SACOG, SCAG, MTC, SANDAG, SJCOG), CALCOG, and others – managed by the Urban Sustainability Accelerator at Portland State University.

Transportation Management Association/Organizations

Transportation management associations (TMAs), also known as transportation management organizations (TMOs), are legally constituted entities tasked with managing the transportation needs of a particular coalition of major employers and/or property owners, neighborhoods, or communities. TMAs typically develop, implement, and evaluate the effectiveness of transportation demand management (TDM) strategies, which are initiatives and programs intended to decrease reliance on vehicle travel and single-occupancy vehicle (SOV) trips and encourage more sustainable, efficient transportation options, and thus, reduce vehicle miles traveled (VMT).

VMT Exchange Transaction Description

Funds through a VMT Exchange would be contributed toward a regionally administered TMO funding program. TMO efforts, including initiation and operation costs, would be focused throughout Los Angeles County and the greater Los Angeles region where TDM strategies are anticipated to reduce VMT. Communities that may benefit most from TDM strategies include areas anchored by major employers, balanced by a comparable residential population nearby, characterized by a pedestrian-friendly, compact development pattern, and served by a variety of transportation options.

In order to be eligible for VMT Exchange funding for TMO initiation and operations costs, a TMA shall comply with certification requirements and demonstrate the effectiveness of their efforts annually. To become certified as part of a SCAG VMT Exchange recipient, TMAs would demonstrate how they administer, implement, operate, and evaluate TDM strategies and services for property owners and employers, including, but not limited to:

- Disseminating and displaying information on site-specific transportation options
- Implementing individualized marketing strategies
- Issuing transit subsidies and tracking use by service area to employees and residents
- Operating first/last mile solutions (i.e. microtransit, bikeshare)
- Ride matching programs and incentives
- Organizing carpooling/vanpooling
- Managing parking through strategies like shared parking, parking pricing or cash-out
- Offering member employees with guaranteed ride home
- Supporting alternative work schedules
- Operating or maintaining worksite bicycle facilities

- Monitor the use of TDM programs and shifts in transportation behavior change through collection of a variety of survey instruments

Evidentiary Basis for Projected VMT Reduction

VMT in the United States have grown three times faster than the population, and almost twice as fast as vehicle registrations¹. **(Figure 1)** Ewing et al. estimates that Americans’ travel choices, including reduced transit use, walking, bicycling, and shared rides, increased drive alone trips, and decreases in carpooling and vanpooling between 1980 and 2004 contributed to about 34% of increased VMT nationwide.

TMAs encourage through a variety of strategies the usage of other modes of transportation and discourage SOV trips aiming to slow the increase of VMT based on travel choices. TMAs alone can reduce 6-7% of total commuter trips and more if implemented in tandem with other TDM strategies.²

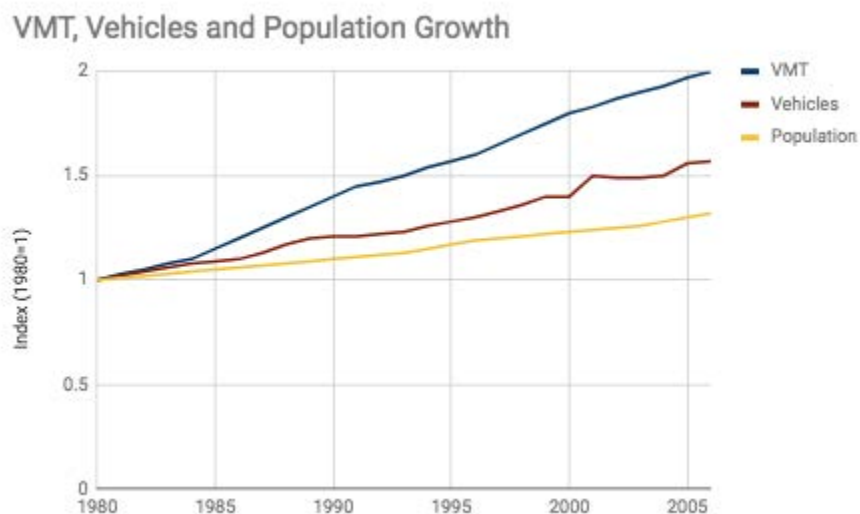


Figure 1. Growth of Vehicle Miles Traveled, Vehicle Registrations, and Population in the United States relative to 1980 values

¹ Ewing, R., Bartholomew, K., Winkelman, S., Walters, J., Chen, D., McCann, B., & Goldberg, D. (2007). Growing Cooler: the evidence on urban development and climate change. Urban Land Institute, 814.

² Victoria Transport Policy Institute TDM Encyclopedia: Transportation Management Associations. Accessed June 2018 <https://www.vtpi.org/t dm/tdm44.htm>.

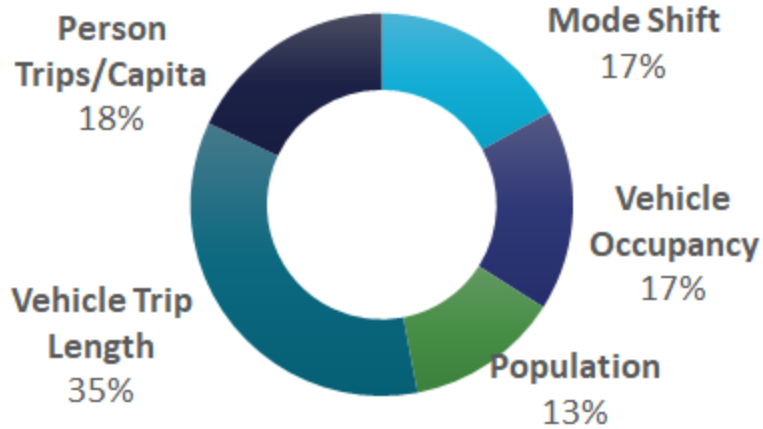


Figure 2. Factors contributing to increases in VMT (Source: Ewing et al. 2007)

While TMAs have similar objectives and apply similar strategies, the effectiveness of each TMAs to reduce VMT depends on the specific priorities and characteristics of the community or coalition of businesses it is serving. Characteristics that influence effectiveness include the ratio of full-time dedicated employees to service population and funding availability for operating costs. **Table 1**, below, describes the varying levels of effectiveness in reducing vehicles miles traveled of TMAs located in the Portland, Oregon area.

The Portland TMA examples illustrates the efficacy of reducing vehicle miles in a service area. At the same time, the VMT benefits can be also estimated at a site level for land use projects that are participating in the VMT Exchange. In understanding VMT benefit at the site level, VMT benefits of TMO membership may be best understood by comparison with programs that require commute trip reductions for large employers. These programs have been shown to reduce between 4.2% and 21% of commuter VMT, depending on the level of employer enrollment into the program.³

Table 1. Summary of Vehicle Miles Reductions associated with TMAs

<i>Location</i>	<i>Description</i>	<i>Vehicle Miles Reduced (VMR)</i>	<i>Mission</i>
<i>Portland, OR</i>	Lloyd District TMA	From 2009 to 2011, reduced approximately 0.016% to 0.024% of regional VMT (Estimated 3,075,416 to 4,613,123 VMT reduced)	Provide strong support to businesses in Lloyd District through innovative funding streams
<i>Portland, OR</i>	Westside Transportation Alliance	From 2009 to 2011, reduced approximately 0.02% to 0.03% of regional VMT (Estimated 4,280,155 to 6,420,232 VMT reduced)	Provide programs and services to employers to reduce SOV trips and GHG to foster economic vitality and improve health
<i>Portland, OR</i>	Gresham Regional Center TMA	From 2009 to 2011, reduced approximately 0.003% to 0.005% of regional VMT (estimated 600,822 to 901,232 VMT reduced)	Improve access options and enhance the local economy

³ California Air Pollution Control Officers Association (CAPCOA). 2010. Quantifying Greenhouse Gas Mitigation Measures, A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures. (pg. 223, 225)

Entities that would be interested in contributing to this VMT mitigation

- Major developers aiming to build in areas of the region predominantly accessible by car, with few other transportation options
- Transportation agencies proposing a road capacity enhancement or new public transportation project
- Lead agencies who are updating their general plan, that would expand capacity and lead to an increase population and jobs in specific areas, and thereby resulting in an increase in regional VMT

VMT Exchange Payment

Entities interested in mitigating VMT contribute funds to cover TMO initiation and operation costs. They may contribute a cost per VMT reduced proportional to the VMT impact their proposal is anticipated to generate. These VMT fees would fund TMO's that could either be initiated in the project area or within the greater region, perhaps subregional TMO trust funds.

Use Case: Westside Mobility Plan

The Westside Mobility Plan Transportation Impact Assessment (TIA) Fee Program Study assessed new impact fees collected from new development to finance projects that are expected to result in a corresponding decrease in VMT within the Coastal Transportation Corridor Specific Plan (CTCSP) and West Los Angeles Transportation Improvement and Mitigation Specific Plan (WLA TIMP) areas. Within the the Westside Mobility Plan area, start-up and limited operation costs to establish a new TMO were estimated to be approximately \$2,000,000, and constitute just 0.75% of the total fees collected in the Plan area. Specifically within the CTCSP, if new development were to exclusively finance TMOs, the trip fees would be:

- \$66 per dwelling unit for a single family residential
- \$35 per dwelling unit for a new apartment project
- \$21 per dwelling unit for a high-rise apartment project
- \$126 per 1,000 square feet for a large office project (>250K sq. ft.)

The Westside Mobility Plan identifies the initiation of a TMO as an effective first step towards establishing a TDM program and a single organization that would be able to direct funds towards VMT reduction strategies within a set geographic area once established. However, the The Westside Mobility Plan trip fees cover a baseline cost fair share contribution of 35%. The CTCSP and WLA TIMP updates to the is not yet adopted, but is currently within the approval process. Attachment 1 includes a list of fees for specific land uses, with TMO fee estimated based on the percentage contribution towards the total project list.

Questions

- **Setting horizon year in capturing VMT of induced demand of capacity-enhancing roadway projects.** The Westside Mobility Plan established a trip fee on new land uses from a forecasted increase of PM peak hour daily VMT estimated for in the future plan horizon in 2035. What future base year would need to be mitigated for transportation projects?
- **Full Cost Recovery of Project?** The Westside Mobility Plan trip fees cover a baseline cost fair share contribution of 35%. Should the mitigation under the exchange cover the full 100% of program costs?

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Attachment 1: Proposed Coastal Transportation Corridor Specific Plan Fee Table

Land Use Category	Unit	PM Trip Rate	Trip Length	VMT Factor	Fee per Unit	TMO Fee per Unit ⁴
Residential Land Uses						
Single Family	DU	1.00	7.4	1	\$8,847	\$66
Apartment	DU	0.58	6.7	0.91	\$4,646	\$35
High Rise Apartment	DU	0.35	6.7	0.91	\$2,804	\$21
Affordable Housing	DU	-	-	-	\$0	
Retail & Service Land Uses						
Retail =< 250 KSF	1,000 s.f.	4.43	3.6	0.49	\$13,347	\$100
Retail >250 KSF - 800 KSF	1,000 s.f.	interpolate				
Retail >800 KSF	1,000 s.f.	3.02	5.2	0.7	\$16,897	\$127
Office & Medical Land Uses						
Office =< 50 KSF	1,000 s.f.	2.69	9.8	1.32	\$31,517	\$236
Office >50 KSF - 250 KSF	1,000 s.f.	interpolate				
Office > 250 KSF	1,000 s.f.	1.43	9.8	1.32	\$16,754	\$126
Industrial Land Uses						
Industrial	1,000 s.f.	0.85	10.8	1.46	\$12,336	\$93
Manufacturing	1,000 s.f.	0.73	10.8	1.46	\$10,594	\$79
Warehouse	1,000 s.f.	0.32	10.8	1.46	\$4,644	\$35
Mini-Wharehouse	1,000 s.f.	0.26	10.8	1.46	\$3,773	\$28
Example projects					Total Trip Fee	Total TMO Fee
100 unit subdivision	DU	100	7.4	1	\$884,700	\$6,635
50 unit residential mid rise	DU	50	6.7	0.91	\$232,300	\$1,742
100 unit residential high rise	DU	100	6.7	0.91	\$280,400	\$2,103
250K sq ft office	1,000 s.f.	250	9.8	1.32	\$4,188,500	\$31,414

⁴ estimate based on the percentage cost of TMO of the total Project List. See the Transportation Impact Assessment (TIA) Fee Program Study for Coastal Transportation Corridor Specific Plan (CTCSP) and West Los Angeles Transportation Improvement and Mitigation Specific Plan (WLA TIMP) Specific Plans Amendment Project Appendix C, Project Cost Estimates. <http://www.westsidemobilityplan.com/wp-content/uploads/2016/06/Nexus-Study-6.03.16.pdf>