Transportation Technical Advisory Committee

AUGUST 27, 2020



Welcome



- What is the Transportation Technical Advisory Committee?
- Why are we here?
- What do we hope to accomplish?

Timeline



Tasks	August	September	October	November	December
Threshold Update					
VMT Baseline					
Population baseline					
Target setting and implementation					
Project Impact & Fee Update	Project Impact & Fee Update				
Dynamic Test & VMT Metric Input					
VMT Screening Criteria, Mitigation, Thresholds of Significane; Fee Update & Input					
Project Impact and Air Quality Mitigation Fee Update Draft Proposals Review & Input					
Formal Hearing Process (RPIC / APC / GB)					

Agenda



Vehicle Miles Traveled Threshold Standard Update

- 1) Workplan
- 2) VMT Policy Landscape
- Sources of VMT Data
- 4) VMT baseline Recommendation

Project Level Transportation Impact Assessment

- Review Chapter 65 of TRPA Code of Ordinances 65 (Air Quality/Transportation)
- 2) Review California Senate Bill (SB) 743
- 3) Review OPR VMT guidance for SB 743
- 4) Review and provide input on next steps for the project level assessment and mitigation fee updates

Zoom



- Success depends on participation
- Please mute when not speaking
- Please identify yourself before speaking
- Encourage use of chat for questions / comments

Introductions



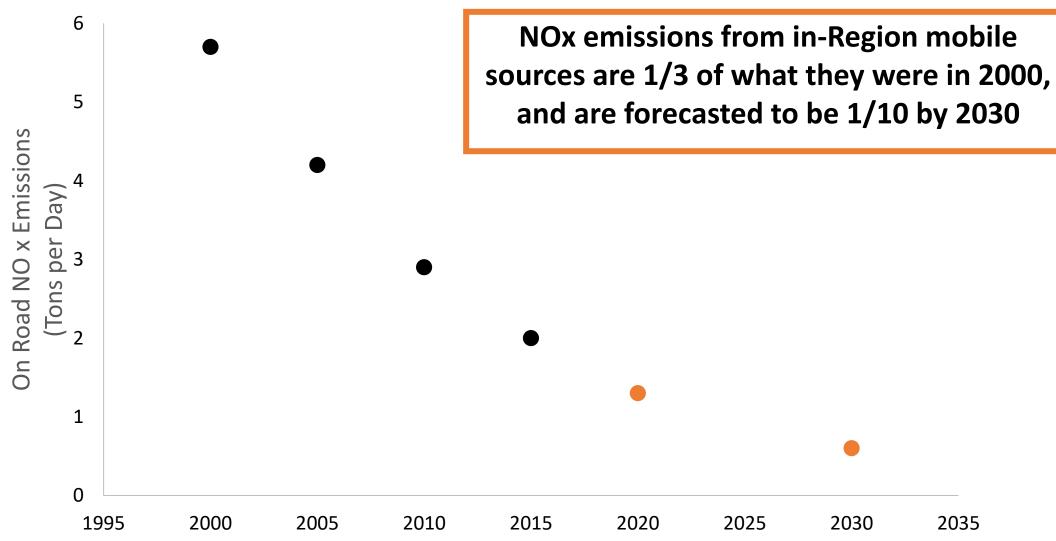
- Name
- Affiliation
- Goals or expectation for today

Vehicle Miles Traveled Threshold Standard Update



Why are we updating the VMT standard?





Source: https://www.arb.ca.gov/ei/maps/basins/abltmap.htm

Goals



Revise the VMT standard to address:

- Increase Mobility
- Greenhouse gas emissions
- Reduce auto dependence

RPIC Direction - Target setting



- 1. Establish a per capita VMT reduction goal
- 2. Establish a target date for achieving the goal
- 3. Ensure alignment with state policy

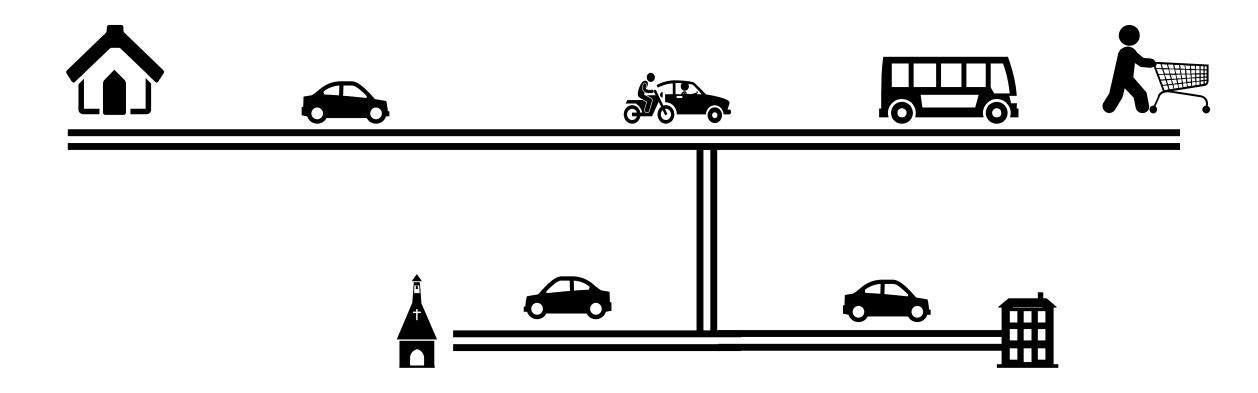


Policy Landscape

What is VMT?

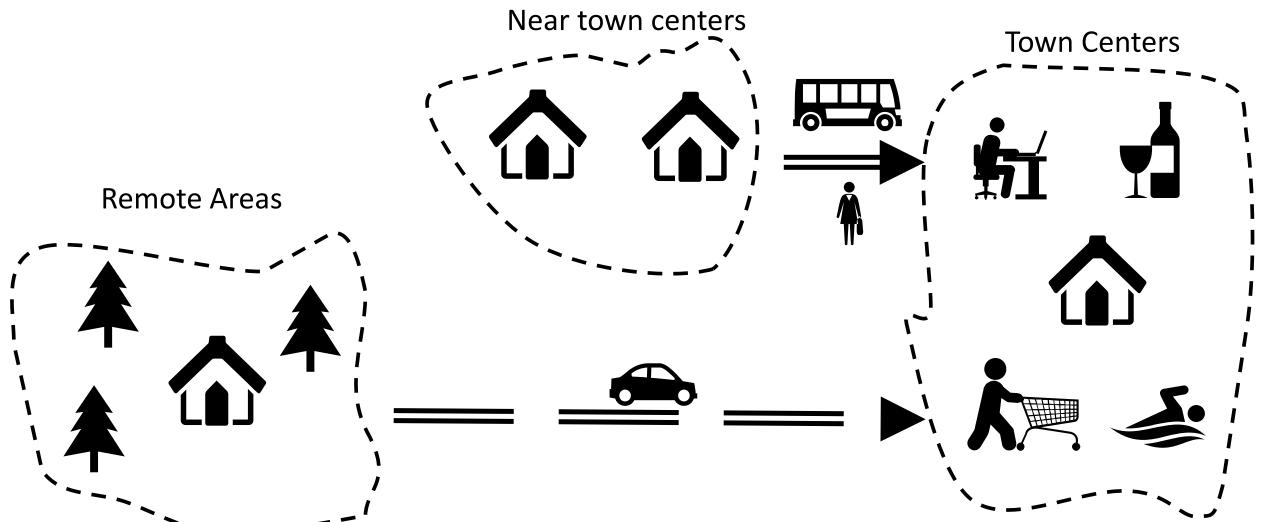


• Vehicle miles traveled – distance traveled on roadways



Transportation and Land-use





VMT and GHG



Mobile-source GHG = VMT X Fleet Mix

California Policy Approach



Statewide



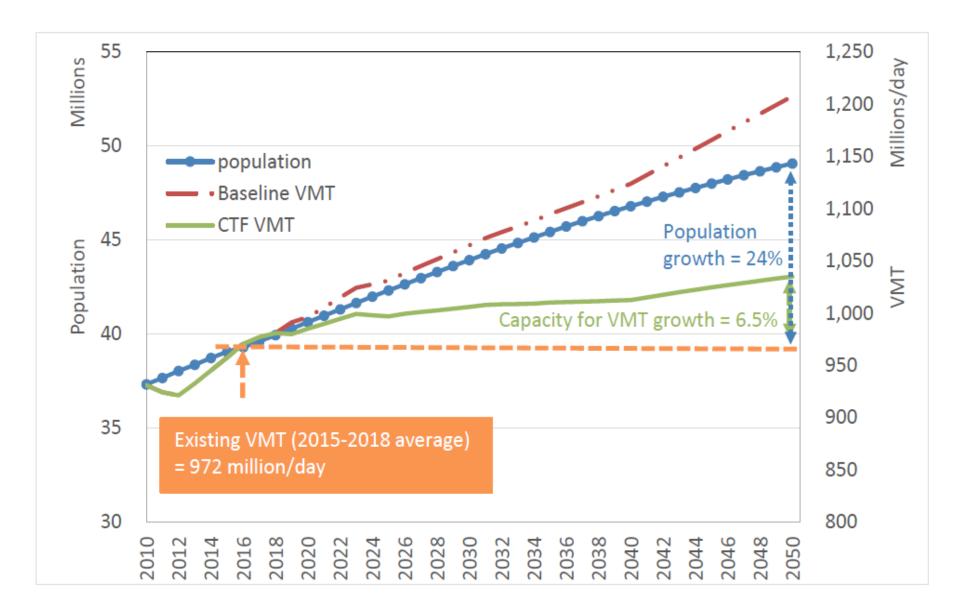
Mobile-source GHG = VMT X Fleet Mix



Local and Regional

CARB Statewide Forecasts





SB375 & SB743



SB375 –Sustainable Communities and Climate Protection Act

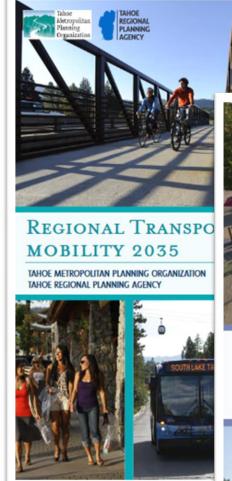
 Per capita GHG emissions reduction targets for metropolitan planning organizations (MPOs) to achieve based on land use patterns and transportation systems specified in Regional Transportation Plans and Sustainable Community Strategies (RTP/SCS).

SB743 – Environmental review

- Shifts environmental review under CEQA from consider impacts to drivers (LOS) to impact of driving (VMT)
- Supports Attainment of SB375

SB375

МРО	Targets	
	2020	2035
MTC/ABAG	-10%	-19%
SACOG	-7%	-19%
SANDAG	-15%	-19%
SCAG	-8%	-19%
Fresno COG	-6%	-13%
Kern COG	-9%	-15%
Kings CAG	-5%	-13%
Madera CTC	-10%	-16%
Merced CAG	-10%	-14%
San Joaquin COG	-12%	-16%
Stanislaus COG	-12%	-16%
Tulare CAG	-13%	-16%
AMBAG	-3%	-6%
Butte CAG	-6%	-7%
San Luis Obispo COG	-3%	-11%
Santa Barbara CAG	-13%	-17%
Shasta RTA	-4%	-4%
Tahoe MPO	-8%	-5%







LINKING TAHOE REGIONAL TRANSPORTATION PLAN

TAHOE REGIONAL PLANNING AGENCY



VMT Reduction is not just about GHG

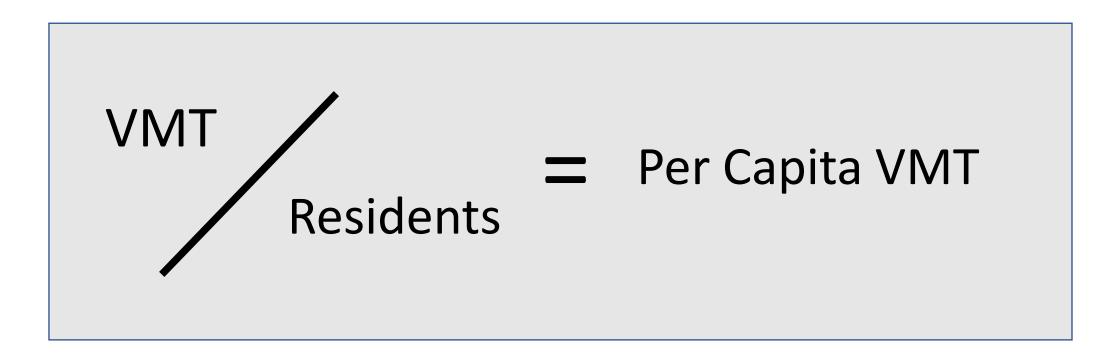


Section 21099:

"promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses."

California Target Formulation

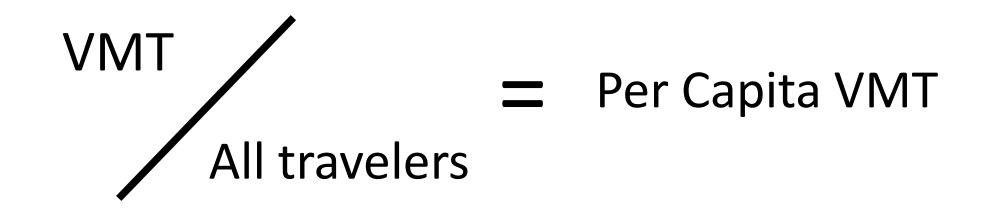




Resident account for ~50% of VMT in Tahoe

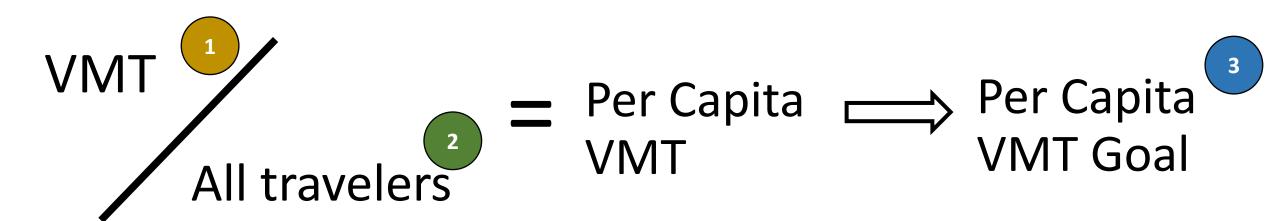
Redefining the population





Process





- 1 Establish the VMT Baseline
- 2 Establish the population baseline
- 3 Target setting



VMT Data

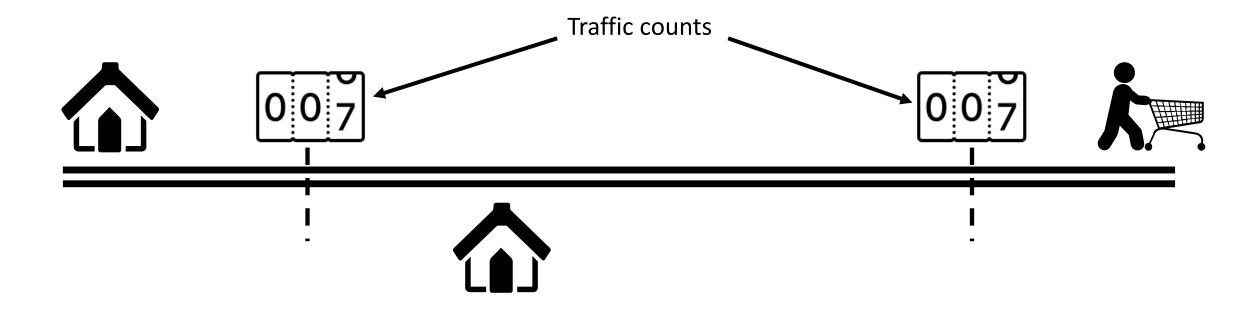
Sources



- 1) Travel Demand Model
- 2) StreetLight
- 3) Caltrans & NDOT (HPMS)

Travel Demand Model





Who made the trip?







Travel Demand Model Estimate



- VMT in 2018 was 1,398,823.
- Mondays through Thursdays during the first two weeks of June, last week of August, and middle two weeks of September

StreetLight



- "Big data" platform
- Uses anonymized smartphone data and GPS collectors
- Available within weeks of data collection







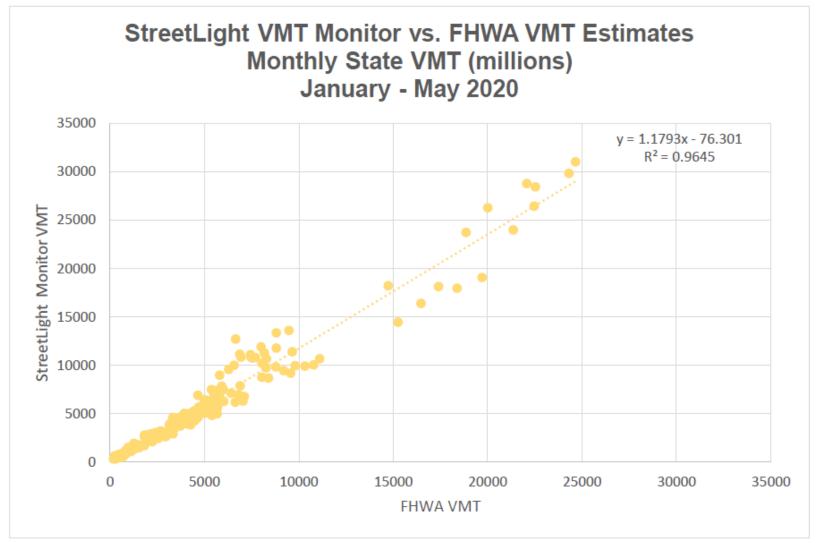


Figure 5: Scatterplot of StreetLight VMT Monitor compared to FHWA VMT.

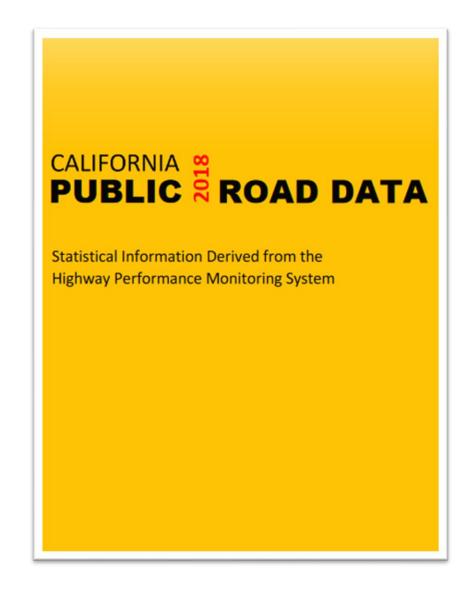


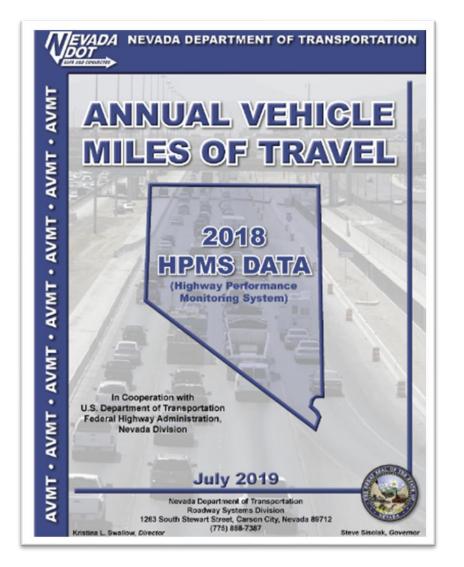


Year	Annual Daily Average	TRPA Model Day
2016	1,463,850	1,568,017
2017	1,429,714	1,362,321
2018	1,379,085	1,434,655
2019	1,364,724	1,288,535

Highway Performance Montioring System







HPMS Estimates



Annual Daily Average

Year	CA	NV	Total
2016	1,016,891	435,213	1,452,104
2017	1,026,876	525,728	1,552,604
2018	1,032,957	437,612	1,470,569





Year	Tahoe Travel Demand Model	StreetLight	Blended
2016		1,568,017	
2017		1,362,321	
2018	1,398,823	1,434,655	1,416,739
2019		1,288,535	





Year	StreetLight	HPMS	Blended
2016	1,463,850	1,452,104	1,457,977
2017	1,429,714	1,552,604	1,491,159
2018	1,379,085	1,470,569	1,424,827
2019	1,364,724		

		3-year average	
Period	StreetLight	HPMS	Blended
2016-2018	1,424,216	1,491,759	1,457,988
2017-2019	1,391,174		



Threshold Standard Baseline





VMT included in the	e standard
Description	Standard development could consider constraining the VMT considered by A) Geography (e.g. inside vs. outside the Region), 2) Trip purpose (e.g., recreation, work), or 3) Traveler type (e.g. day visitors, commuters, residents).
Recommendation	Include all VMT inside the region by any traveler and for any trip purpose. Staff further recommends refining methods to estimate trip length outside the region and continued programmatic emphasis on reduction of external VMT.

Travelers



Travelers included i	n the standard
Description	Efficiency based measures of VMT require estimates of both the amount of the VMT and the number of travelers generating that VMT.
Recommendation	The standard should seek to accurately reflect the efficiency of the transportation system overall. To do so, all travelers must be accounted for in the efficiency metric. Accounting for all travelers means the inclusion of visitors, residents, commuters, and anyone else traveling in the Region.

Time Period



Time period for the	standard
Description	What time period should be used to set the baseline and assess the status of the threshold standard? Potential time periods could include annual, seasonal, monthly, or a specific day. When setting the baseline should multiple years of data be considered?
Recommendation	Annual average VMT from multiple years of data should be used to establish the baseline VMT level. Concerns related to seasonal or daily variations should be address through targeted mitigation and program design. VMT estimates should from 2020 should not be considered in the establishment of the VMT baseline because of the impact of Covid-19.

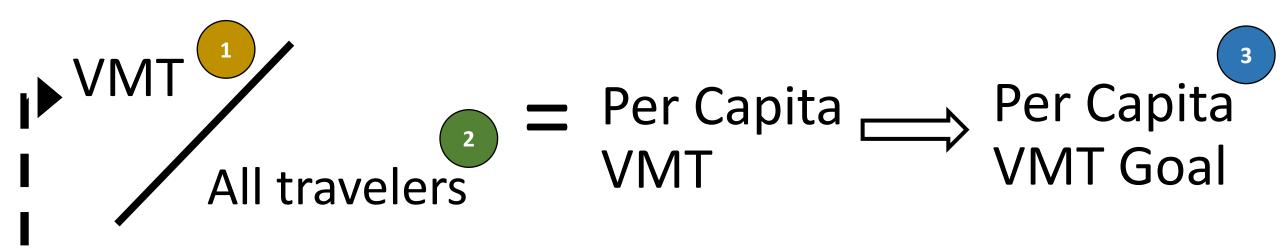
VMT Baseline



Baseline VMT for standard establishment						
Description	The VMT estimate that will serve as the basis for establishment of the					
	standard.					
Recommendation	Three-year annual average daily VMT (2016-2018) 1,457,988. The estimate is					
	based on StreetLight and Caltrans and NDOT data. Use of an annual average					
	emphasizes the importance of reducing VMT at all times of the year and for all					
	travelers. The use of multiple years reduces uncertainty and addresses					
	interannual variability, and the application of publicly available data sources					
	promotes transparency.					

Recommendation Summary





Three-year annual average VMT (2016-2018) 1,457,988

- 1 Establish the VMT Baseline
- 2 Establish the population baseline
- 3 Target setting

Project Level Transportation Impact Assessment & Air Quality Mitigation Fee Update



Purpose



Update processes and programs and align with the overall VMT threshold update workplan and its focus on promoting mobility, reducing mobile source greenhouse gas (GHG) emissions, and reducing dependence on the automobile.

Better connect and align TRPA and California local jurisdictions' project impact assessment for VMT.

Accelerate development of the walkable, bikeable, transit-friendly vision of the Regional Plan and Regional Transportation Plan and attaining and maintaining TRPA's VMT threshold.

Workplan Outline



- 1) Project-Level Transportation Impact Assessment
 - a) Current Practice
 - b) California State Regulation & Guidance
 - c) Review & Recommendations Review
 - a) Dynamic Testing of the TRPA Model
 - b) VMT Metrics
- 2) Air Quality Mitigation Fee Update
 - a) Overview of Workplan

Timeline



Tasks	August	September	October	November	December
1 – Project Impact Overview, Dynamic Test & VMT Metric Input					
2 – Project Impact Update, VMT Screening Criteria, Mitigations, & Thresholds of Significane Input; Fee Update & Input					
3 – Project Impact and Air Quality Mitigation Fee Update Draft Proposals Review & Input					
Formal Hearing Process (RPIC / APC GB)					



Current Practice: TRPA Code of Ordinances 65 Air Quality / Transportation

- Defines Types of Development Projects (e.g., Transferred Development, Change in Operation, etc.)
- Identifies the Trip Table for Calculating Daily Vehicle Trips
- Defines Project Significant Impact Levels
- Stipulations for a Traffic Analysis
- Defines Required Offsets
 - Mitigation fees
 - Mitigation Measures

Air Quality Mitigation Fee



Current Practice: TRPA Code of Ordinances 65 Air Quality / Transportation

- Describes Use & Distribution of Fees
 - Collected & Distributed at Local Jurisdictions or TTD
 - Portion May Cross Jurisdictional Boundaries
 - Must be consistent with Regional Transportation Plan or the 1992
 Air Quality Plan
- Stipulates for Revisions of Fees
- Defines Mitigation Credits

Project Level Assessment: California State Regulation & Guidance



Senate Bill (SB) 743

- Went into effect July 1, 2020.
- Three Goals:
 - 1. Reduce GHG emissions
 - 2. Develop multimodal networks
 - 3. Diversify land uses
- Replaces Level of Service with VMT
- Assesses project's generated and effect (i.e., cumulative)

Office of Planning and Research

- Discusses:
 - VMT
 - Significance thresholds for land use and transportation projects
 - VMT mitigations
- Standards of Significance Recommendations:
 - 15% lower than existing VMT per capita for residential
 - 15% lower than existing VMT per employee for office
 - Any net increase in VMT for retail



Work Tasks

- TRPA is working in collaboration with Placer County, California
- Fehr & Peers (consultant) assists with analysis recommendations, including (bold in packet):
 - Existing methodologies for calculating project-level VMT
 - Best practices for VMT metrics
 - Best practices for methods for calculating VMT
 - Best practices for VMT screening criteria (draft)
 - Best practices for VMT mitigations
 - Project-level thresholds of significance



Work Tasks: Existing Methodologies

- Existing methodologies for calculating project-level VMT
 - Tahoe activity-based travel demand model
 - Assess the Tahoe Model's ability to produce VMT estimates for project-level transportation impact assessment
- Qualitative assessment complete
 - Tahoe Model is best of available tools
- Quantitative assessment
 - TTAC Input requested



Work Tasks: Quantitative Assessment

- 1. South Shore conversion in a town center of 12 Tourist Accommodation Units (TAU) to 10 Residential Units (RUU)
- 2. North Shore conversion in a town center from 14,839 square feet of Commercial Floor Area to 118 units (78 timeshare and 40 hotel) TAU, plus 3,858 square foot conference/meeting facilities, a 3,981 square foot restaurant, and 1,163 square foot food and beverage deck (Tahoe City)
- 3. North Shore 10 employee residential units in a town center (Tahoe City)
- 4. South Shore 23 new 4-bedroom RUUs (townhome single family dwellings) outside of a town center (SLT)
- 5. South Shore 3,000 5,000 square foot commercial redevelopment (e.g., Meyers)
- 6. North Shore small mixed-use development in town center: 10 Multifamily housing units, 2,623 SF Food/Beverage Retail Sales, 1,500 SF Eating and Drinking Places, and 1,250 SF Secondary Storage (Kings Beach)
- 7. Recreation: Bike path, East Shore, Spooner Summit to Sand Harbor, with the path set as an attractiveness factor for the Sand Harbor recreation use.
- 8. Transportation: parking management. Use the TRPA model's cost factor as a proxy for parking management.



Work Tasks: Quantitative Assessment

- 1. South Shore conversion in a town center of 12 Tourist Accommodation Units (TAU) to 10 Residential Units (RUU)
- 2. North Shore conversion in a town center from 14,839 square feet of Commercial Floor Area to 118 units (78 timeshare and 40 hotel) TAU, plus 3,858 square foot conference/meeting facilities, a 3,981 square foot restaurant, and 1,163 square foot food and beverage deck (Tahoe City)
- 3. North Shore 50 employee residential units in a town center (Tahoe City)
- 4. South Shore 23 new 4-bedroom RUUs (townhome single family dwellings) outside of a town center (SLT)
- 5. South Shore 3,000 5,000 square foot commercial redevelopment
- 6. North Shore small mixed-use development in town center: 10 Multifamily housing units, 2,623 SF Food/Beverage Retail Sales, 1,500 SF Eating and Drinking Places, and 1,250 SF Secondary Storage (Kings Beach)



Work Tasks: VMT Metrics

- Best practices for VMT metrics
 - Includes discussion additional metrics relevant to the Tahoe Basin
- Appropriate for evaluating land use plans, land use projects, and transportation projects
- Two general types: absolute & efficiency (TTAC input on this)
 - Absolute: measures a specific amount of VMT, such as total VMT on a network
 - Efficiency: measures VMT as a ratio or rate, such as VMT per capita



Work Tasks: VMT Metrics

- Total VMT
- Total VMT per service population (includes all travelers: resident, employee, visitor, and pass-through)
- Total VMT per resident
- Total VMT per employee, by model employment-related land use type
- Home-based VMT per resident
- Total VMT per visitor
- VMT per unit of Development

Next Steps



Next Steps



Tasks	August	September	October	November	December				
Threshold Update									
VMT Baseline									
Population baseline									
Target setting and implementation									
Project Impact & Fee Update									
Dynamic Test & VMT Metric Input									
VMT Screening Criteria, Mitigation, Thresholds of Significane; Fee Update & Input									
Project Impact and Air Quality Mitigation Fee Update Draft Proposals Review & Input									
Formal Hearing Process (RPIC / APC / GB)									



Thank you!