

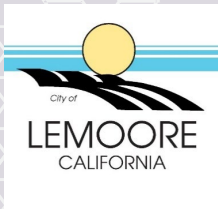


06/19/2023
City Council Special Meeting

**Handouts received after
agenda posted**



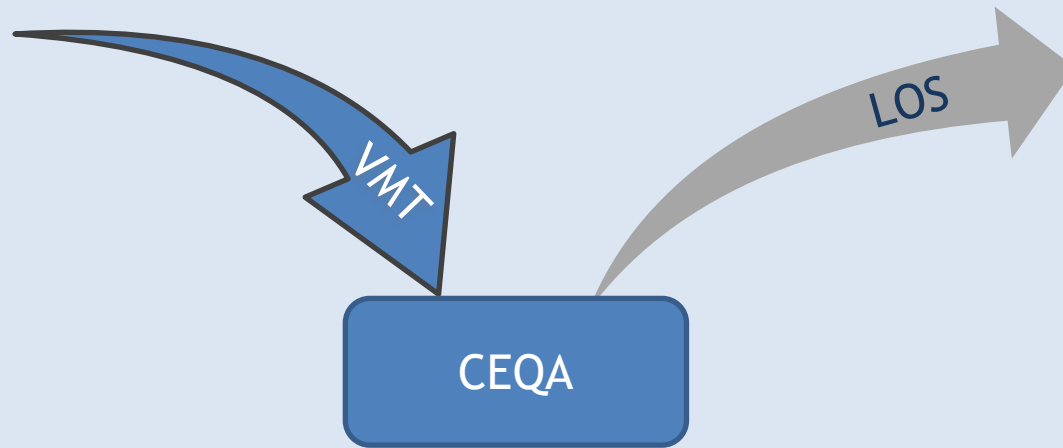
City of Lemoore
VMT Thresholds and Implementation Guidelines
City Council Meeting – June 19, 2023



LSA

Overview of SB 743 and VMT

- Took effect statewide on **July 1, 2020**
- Replaced **Level of Service (LOS)** with **Vehicle Miles Traveled (VMT)** as basis for determining transportation impacts under **California Environmental Quality Act (CEQA)**



- ✓ Serves the State's greenhouse gas (GHG) emission reduction goals
- ✓ Encourages denser infill development and discourages greenfield development

- **Vehicle Miles Traveled (VMT)** : Total distance traveled by all vehicles.

$$\text{VMT} = (\text{daily traffic}) \times (\text{trip length})$$

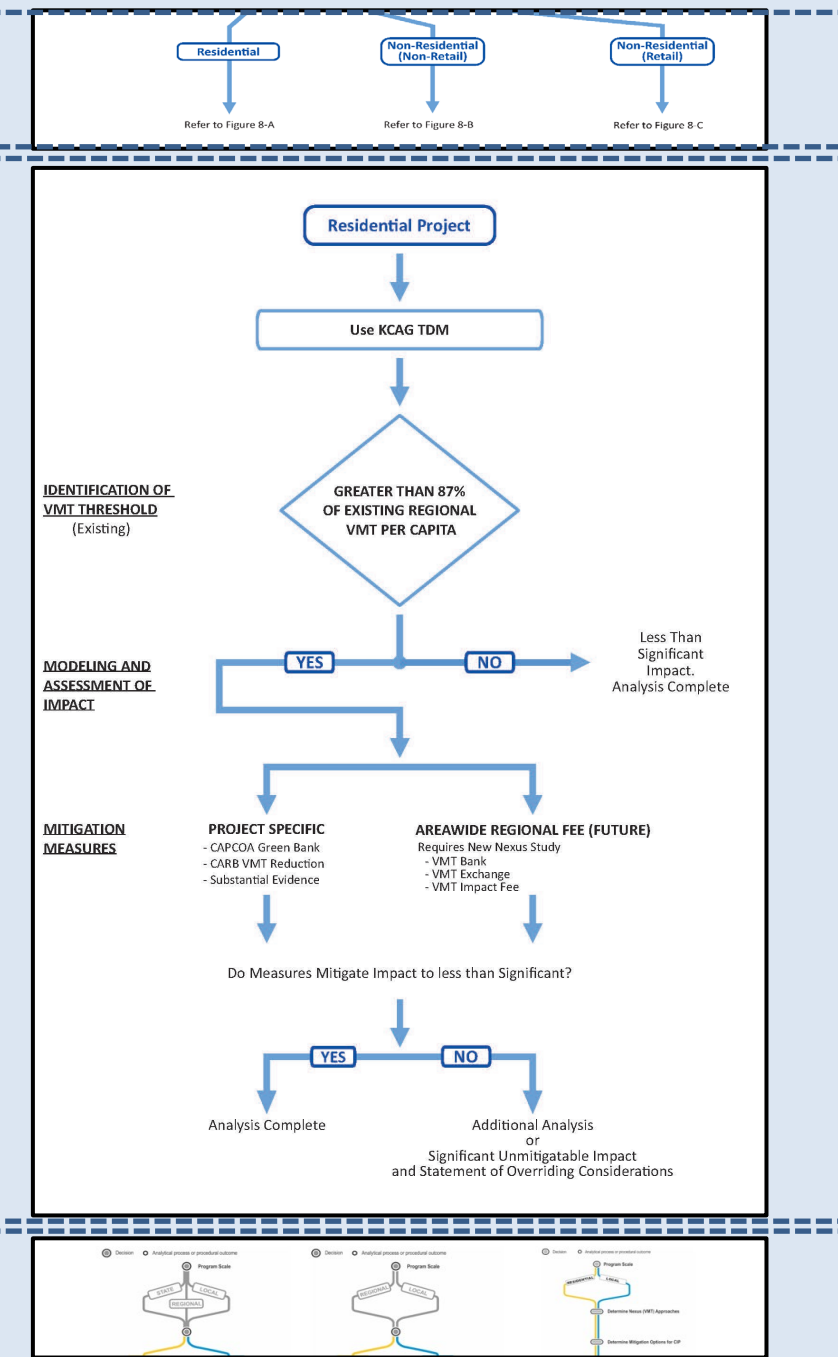
Key Concepts – CEQA VMT Analysis

- Definition of “Region”
- Project Screening Criteria
- VMT Screening Tool
- VMT Thresholds
- Project VMT Analysis
- VMT Mitigation Measures

Project Screening

VMT Analysis
Methodology

Mitigation Measures



Definition of “Region”

Project VMT profile will be evaluated against thresholds based on regional VMT profile

Region refers to the geography within which most of project trips would be contained

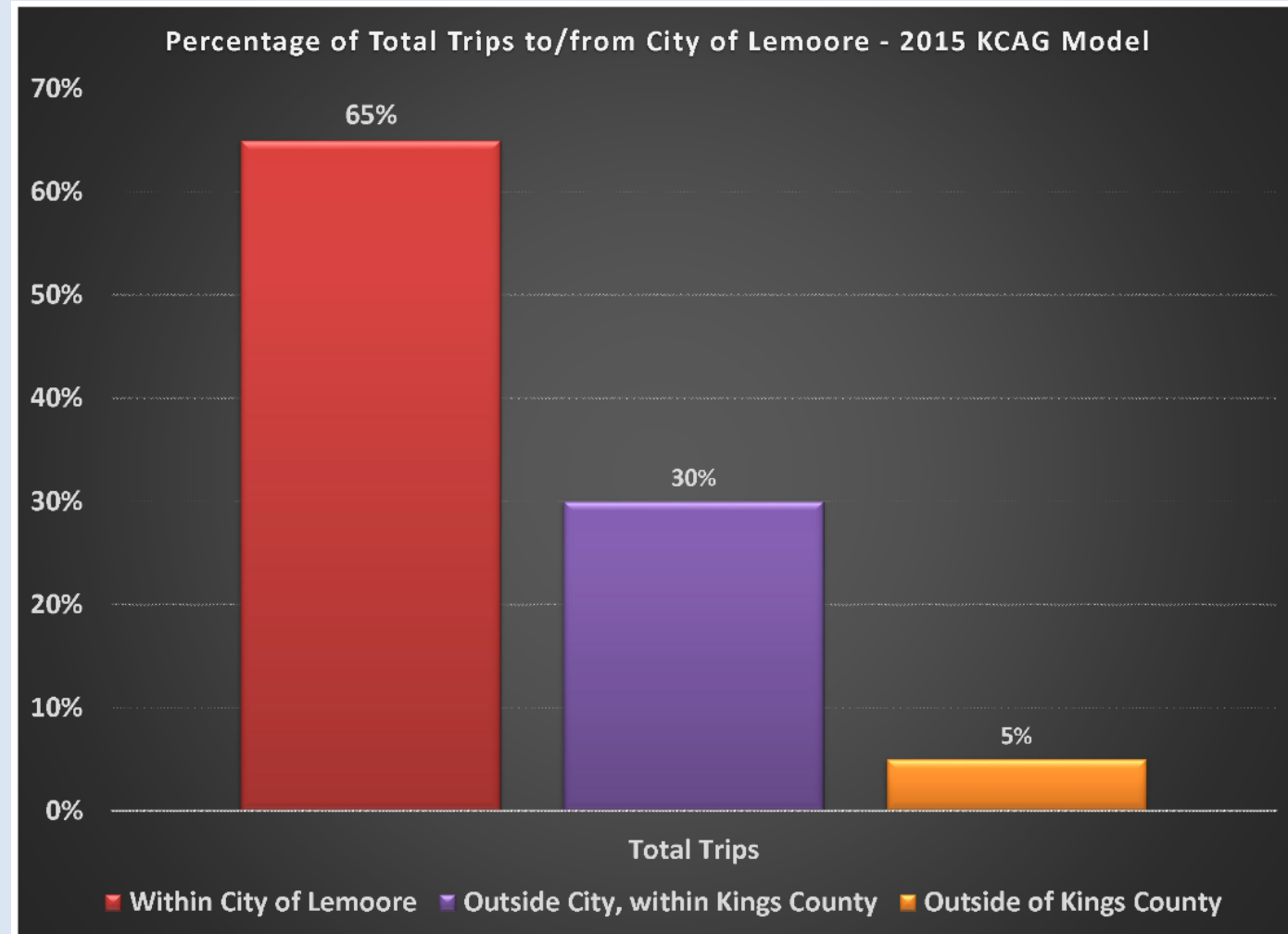
Using **Kings County** as the region for VMT analysis is recommended because :

Extensive

- Includes majority (95%) of trips originating from or ending in the City of Lemoore are contained within Kings County.

Relevant

- Most large or urbanized areas around the State of California identify County boundary as the region for VMT analysis



VMT Screening Criteria : Land Development Projects

Projects meeting certain criteria can be assumed to have **no or less than significant impact**

Projects within High-Quality Transit Area / High-Quality Transit Corridor

Local Serving Retail (<50,000 s.f.)

100% affordable housing units

Consistent with City's General Plan and generating less than 1,000 daily trips;
fewer than 500 daily trips otherwise

Institutional/government and public service

Consistent with City's General Plan and located in low VMT areas

*Detailed screening criteria are provided in the City of Lemoore VMT Thresholds and Implementation Guidelines
(City **VMT Guidelines**)*

Table C: VMT Screening Thresholds for Sample Land Uses

Land Use	Size of Projects (Requiring a General Plan Amendment)	Size of Projects (Not Requiring a General Plan Amendment)
Single-Family Residential ¹	53 DU	106 DU
Low-Rise Multifamily Residential ²	74 DU	148 DU
Mid-Rise Multifamily Residential ³	110 DU	220 DU
Office	46.125 TSF	92.250 TSF
Warehouse	292.397 TSF	584.795 TSF
Light Industrial	102.669 TSF	205.338 TSF
Hotel	62 Rooms	125 Rooms
Medical Office ⁴	13.888 TSF	27.777 TSF
Hospital	22 Beds	44 Beds

Notes: DU = Dwelling Units; TSF = Thousand Square Feet

Project sizes have been determined based on trip generation rates obtained from the ITE *Trip Generation Manual* (11th Edition).

¹ The project sizes have been provided for single-family detached residential only.

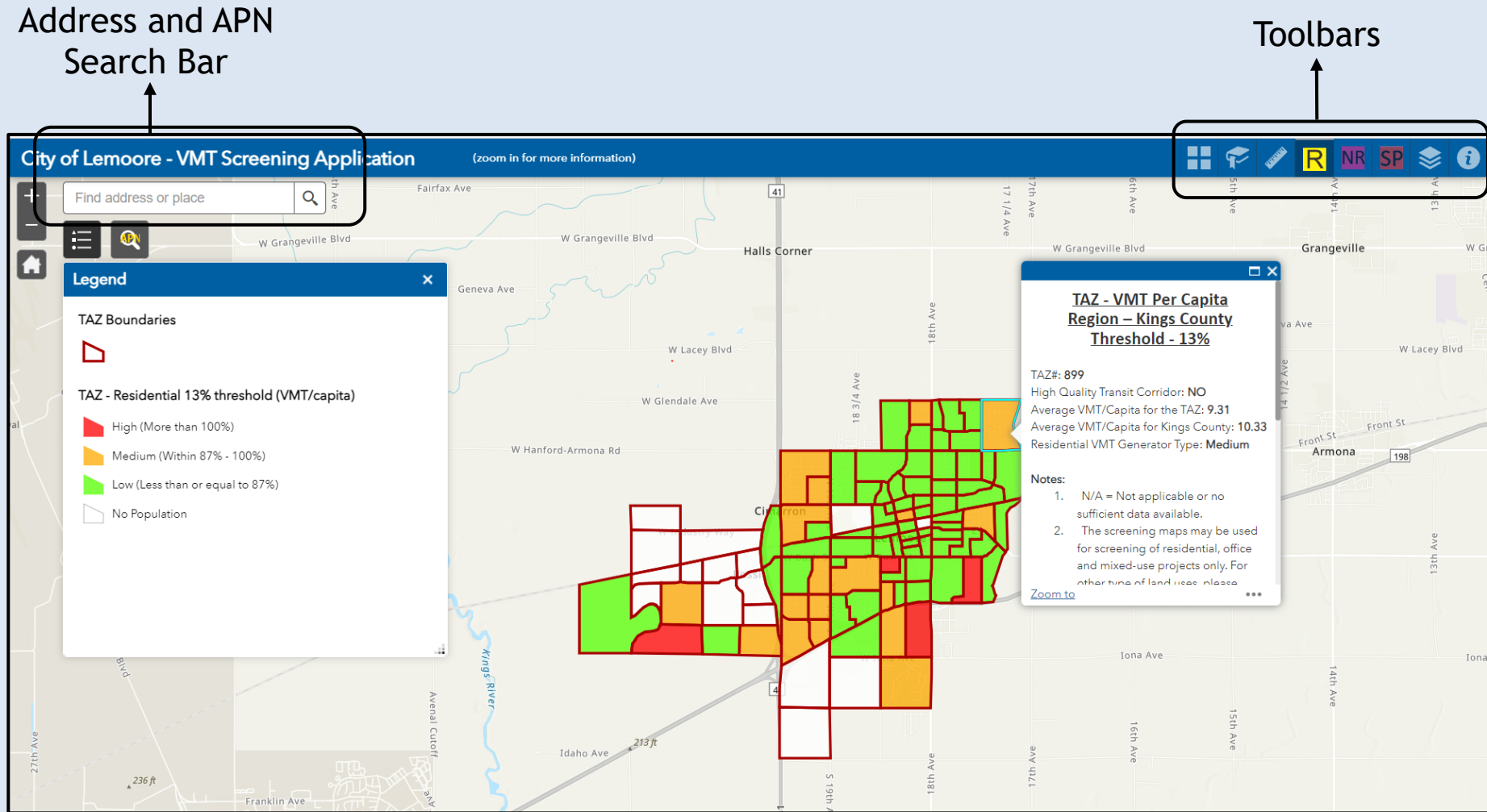
² The project sizes have been provided for low-rise multifamily residential (not close to rail transit) only.

³ The project sizes have been provided for mid-rise multifamily residential (not close to rail transit) only.

⁴ The project sizes have been provided for stand-alone medical office buildings only.

VMT Screening Tool

- Online Screening Tool
- Determine whether a project could be screened out by location
- Input : Project Type ; Location
- Output : VMT profile of the project location



City of Lemoore VMT Screening Tool: <https://gis1.lsa.net/LVMT/>

VMT Screening Criteria: Transportation Projects

Transit and Active Transportation Projects

- New transit service
- Bicycle/Pedestrian Infrastructure

Non-Capacity Increasing Projects

- Rehabilitation/Maintenance/Safety/Repair
- Traffic monitoring and control systems

.....a detailed list of transportation projects which can be screened is provided in the City VMT Guidelines

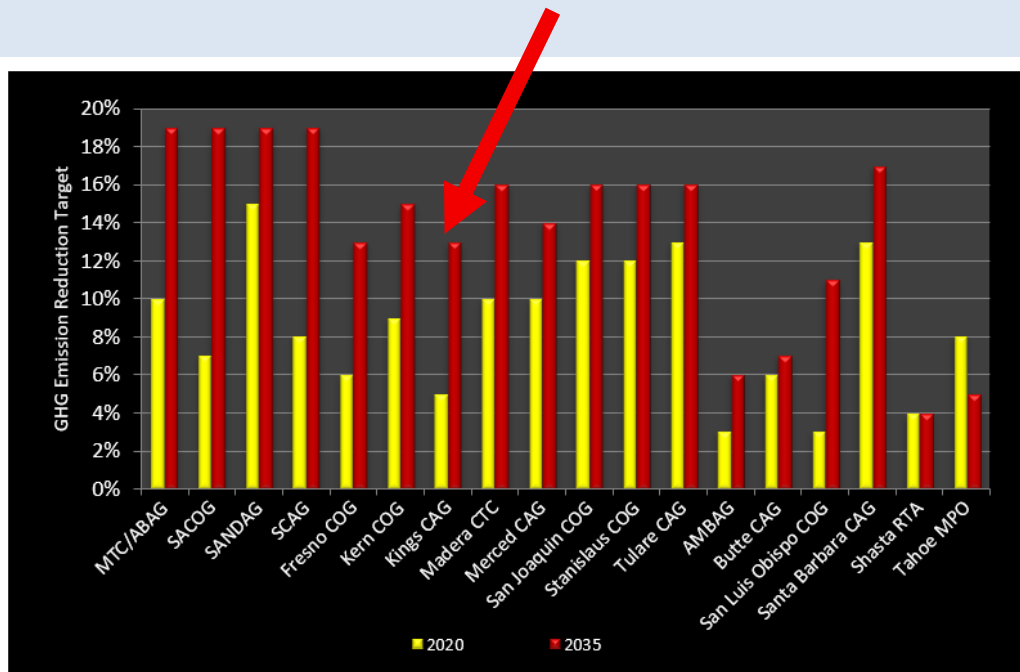
- Alternative fuel charging infrastructure
- Park and Ride facilities

*Detailed screening criteria are provided in the City of Lemoore VMT Thresholds and Implementation Guidelines
(City **VMT Guidelines**)*

VMT Thresholds/Metrics for City of Lemoore

VMT threshold of 13% below existing regional average (or 87% of existing regional average) has been recommended for City of Lemoore

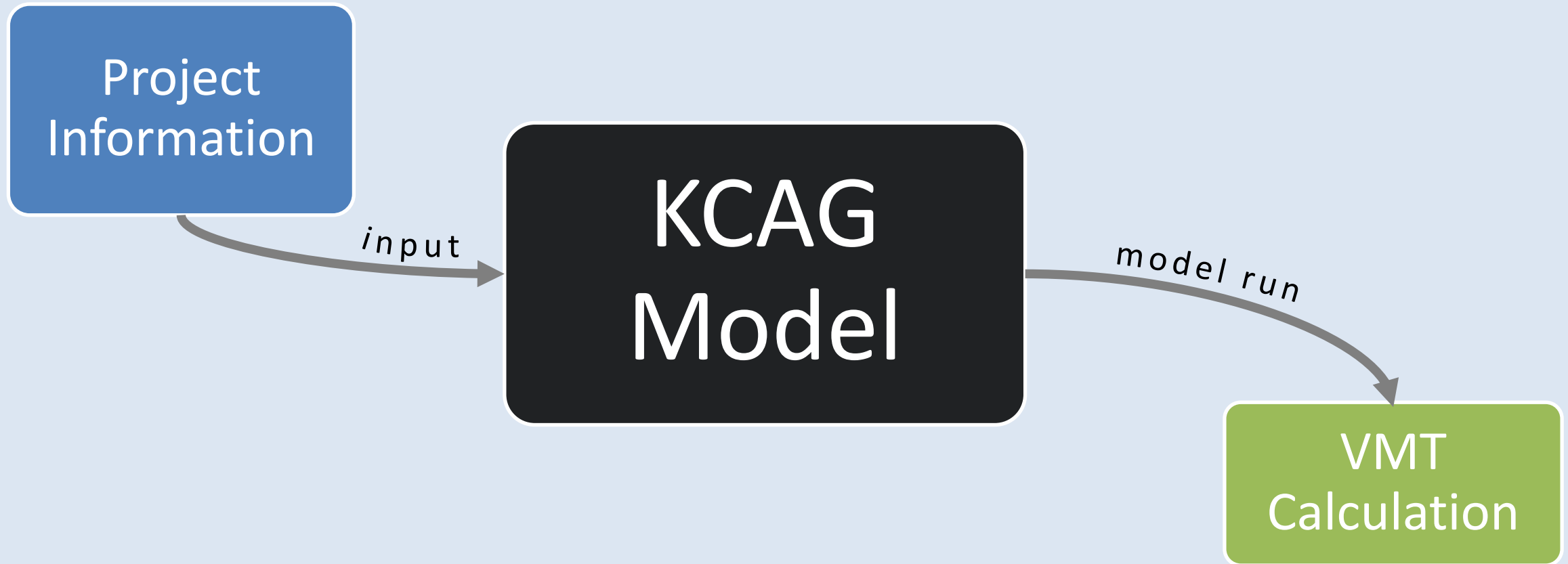
Project Type	VMT Metric
Residential	VMT/capita
Office	VMT/employee
Retail	Total VMT
Mixed-Use, Land Use Plan (General Plan/Specific Plan)	Respective VMT metrics for its different land use components
Hotel, Hospital, Medical Office Building, or any similar use with approval from the City	VMT/service population
Other Land Uses	VMT/employee
Transportation	VMT attributable to project



Source: <https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets>

Figure 6: SB 375 Regional Plan Climate Targets for the 18 California MPOs

VMT Analysis Methodology using KCAG Model : Overview



The KCAG Model uses various socioeconomic variables related to the project as an input and gives the VMT information as output, which is then used to determine significance of project VMT impacts.

VMT Mitigation Measures

If a significant VMT impact is found :

Applicant and City discuss possible mitigation measure, which should be :

Context-specific

Effective

Feasible

- Vanpools
- Ridesharing
- Transit Passes
- Traffic Calming measures
- Promotion of non-motorized uses..

Challenges:

Measuring effectiveness

Applicability/Feasibility

Recommendations:

Use of local data if available

Monitoring of implemented measures

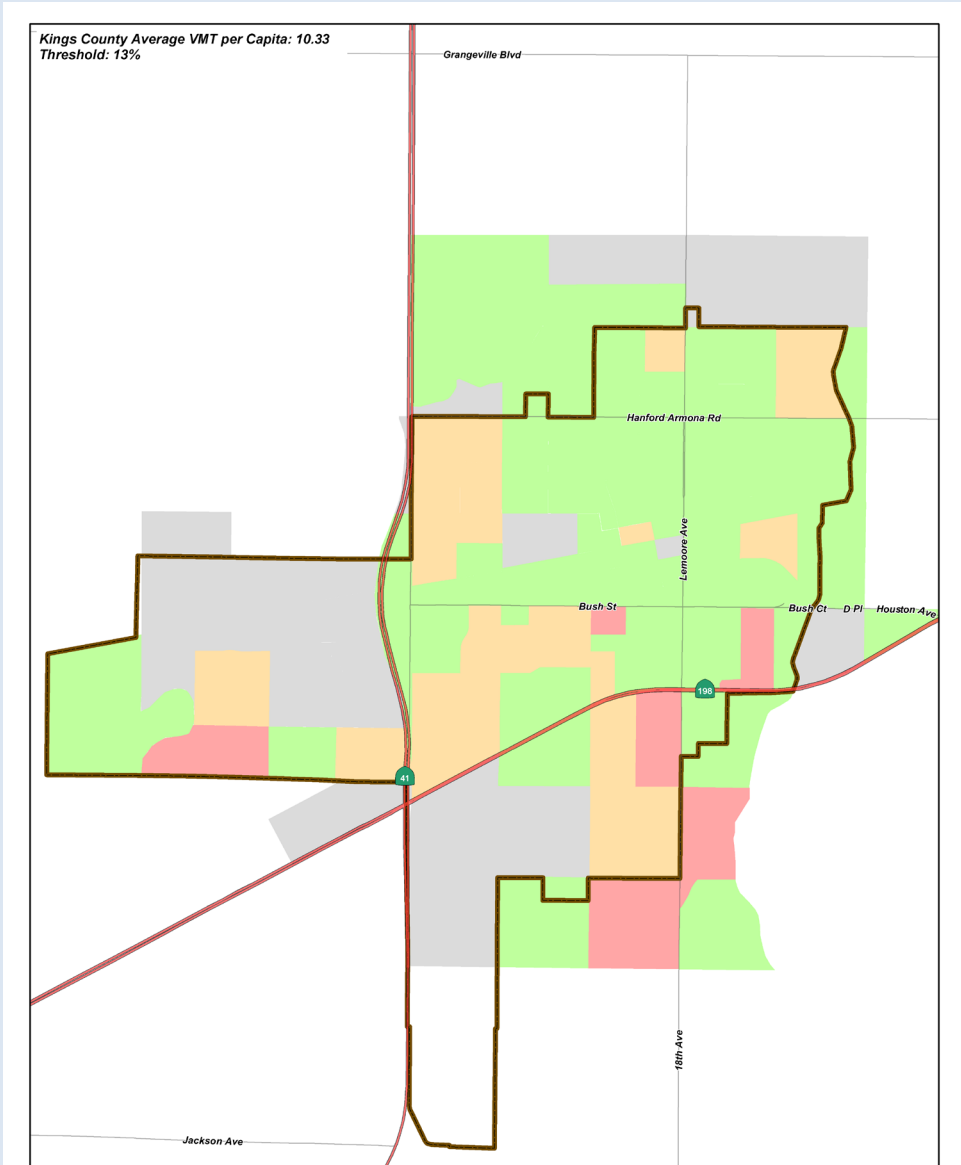
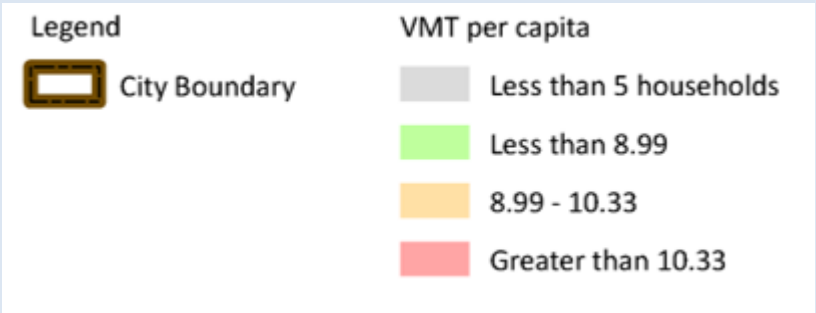
An extensive list of strategies that may be applicable to Lemoore is included in the City VMT Guidelines

Questions ?

THANK YOU !

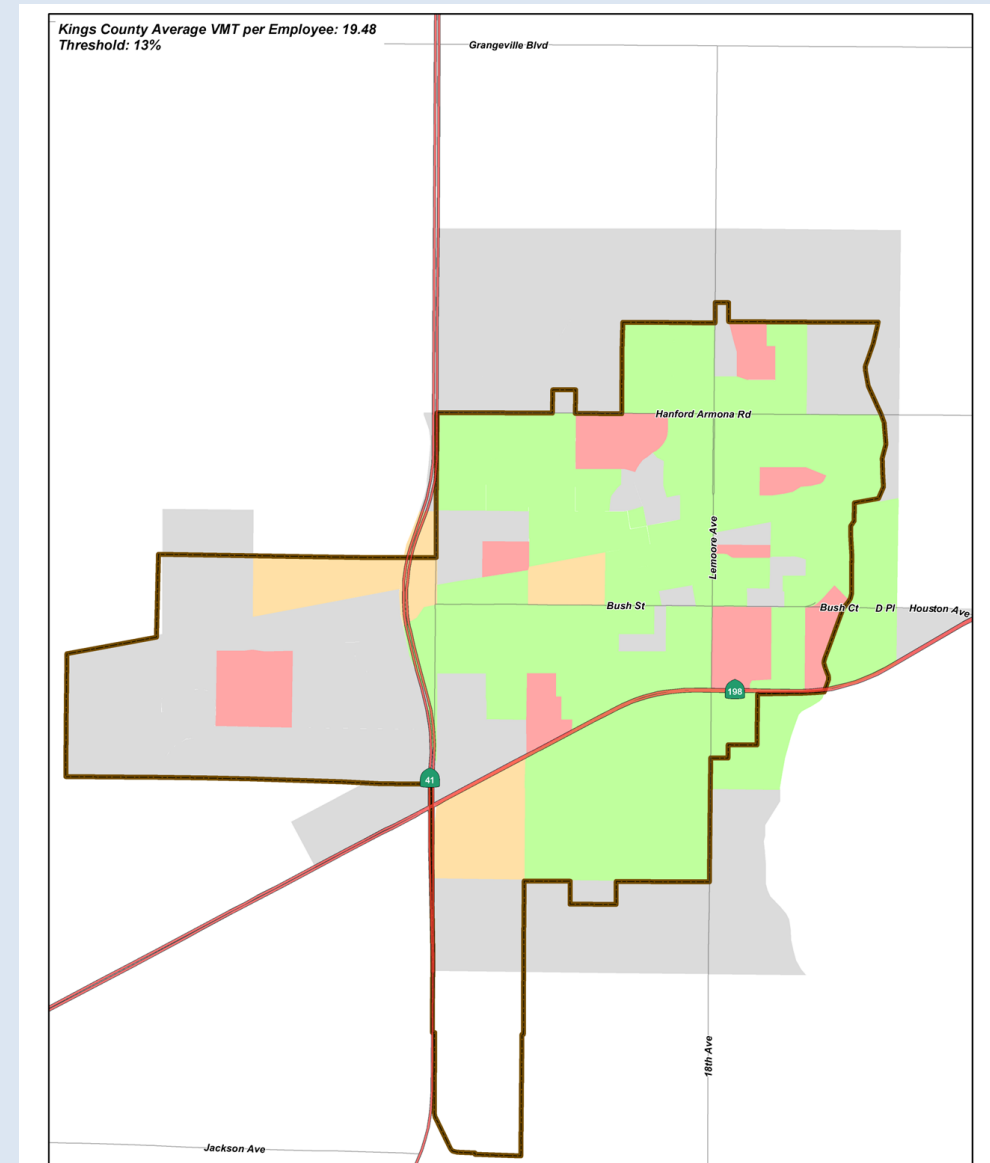
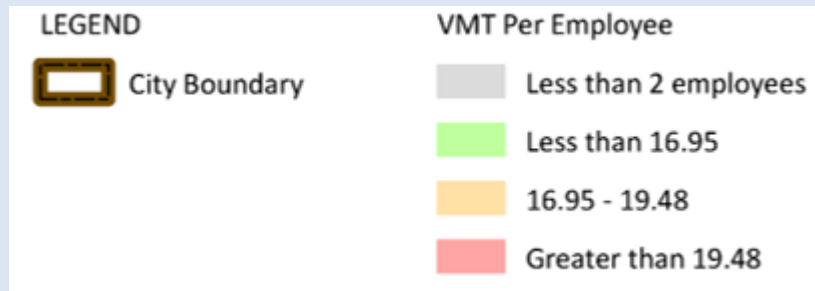
VMT per Capita Screening Map for City of Lemoore

VMT/Capita threshold 13%



VMT per Employee Screening Map for City of Lemoore

VMT/Employee threshold 13%



VMT per Service Population Screening Map for City of Lemoore

VMT/Service Population threshold 13%

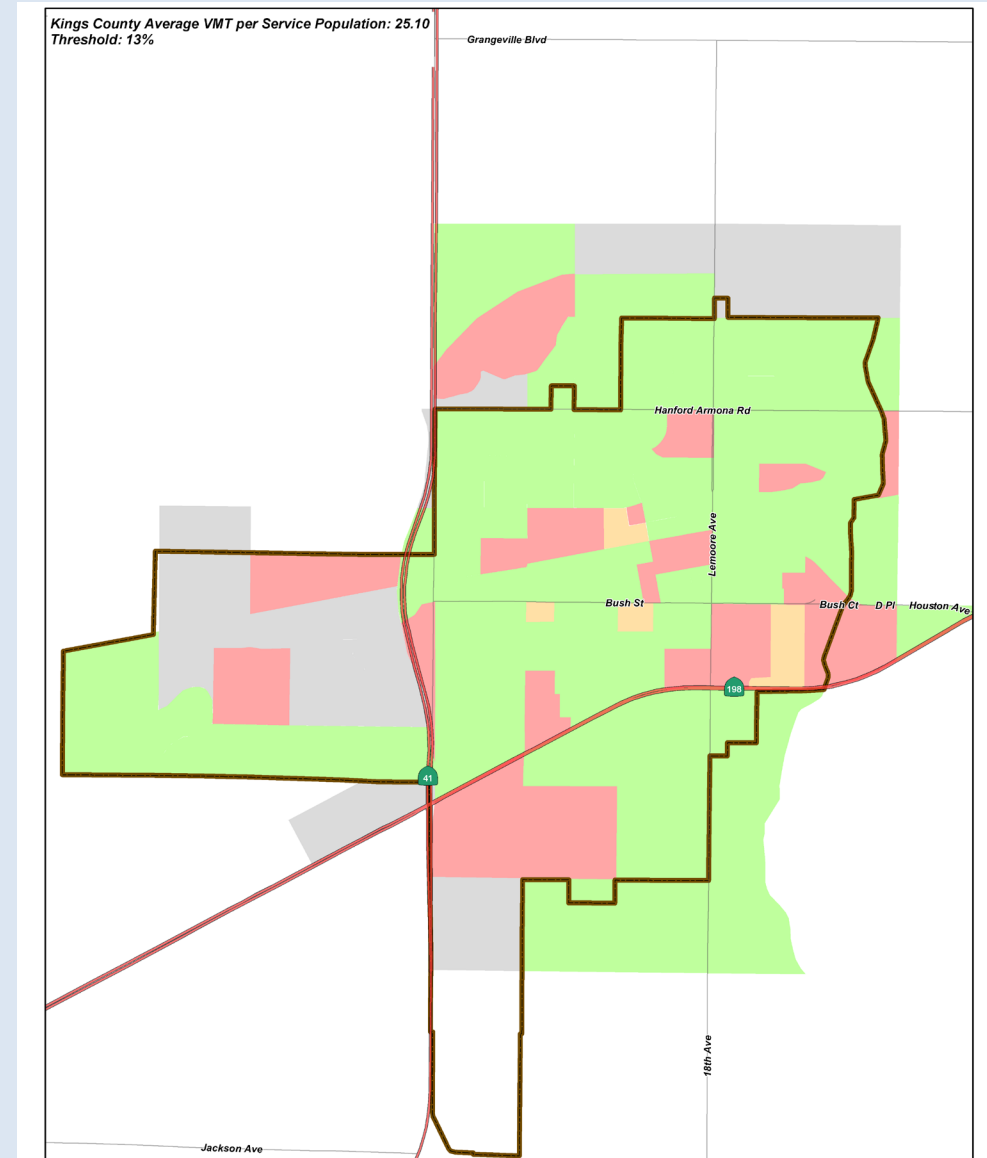
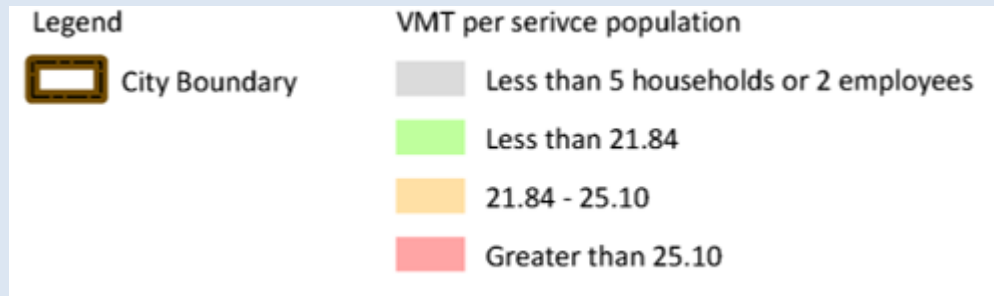


Table B: CO₂e Emission Rates by Land Use Type

Land Use	DU or TSF	Total MTCO ₂ e per year	Annual MTCO ₂ e per DU or TSF
Single Family Residential	270 DU	2,998	11.10
Low-Rise Multifamily Residential	385 DU	2,997	7.78
Mid-Rise Multifamily Residential	513 DU	2,997	5.84
Office	337 TSF	2,993	8.88
Warehouse	426 TSF	2,996	7.03
Light Industrial	507 TSF	2,998	5.91
Hotel	382 Rooms	2,971	7.78
Medical Office	142 TSF	2,993	21.08
Hospital	197 Beds	2,989	15.17
Shopping Plaza	82 TSF	2,993	36.50
Strip Retail Plaza	137 TSF	2,994	21.85

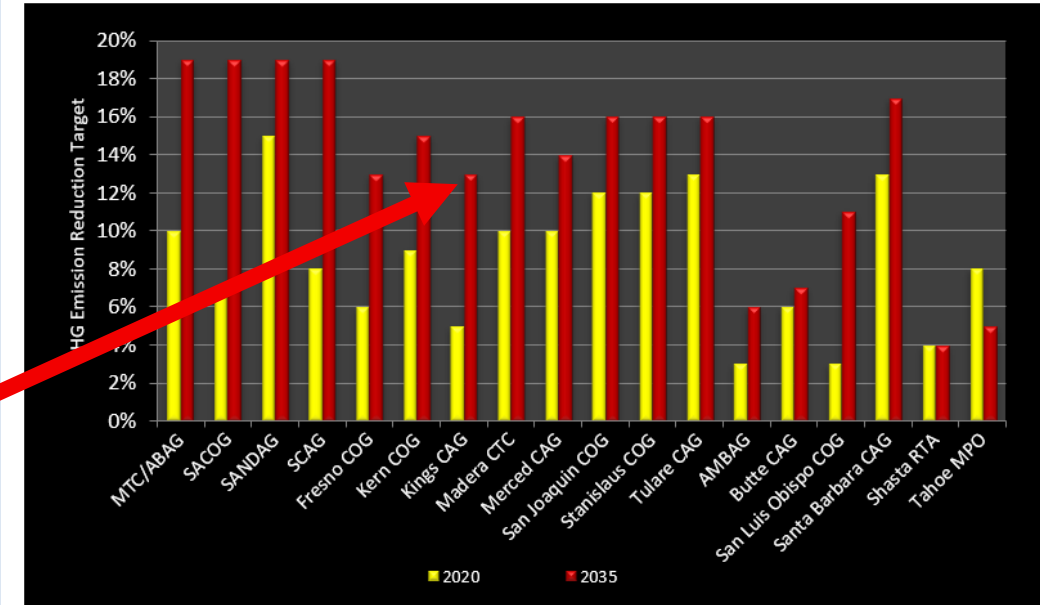
Source: California Emissions Estimator Model (CalEEMod) version 2022.1.0.

DU = Dwelling Units; TSF = Thousand Square Feet; CO₂e = carbon dioxide equivalent

VMT Thresholds for City of Lemoore

VMT threshold of 13% below existing regional average (or 87% of existing regional average) has been recommended for City of Lemoore

based on **CARB** target of 13% reduction in Kings CAG GHG emissions by 2035



Source: <https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets>

Figure 6: SB 375 Regional Plan Climate Targets for the 18 California MPOs

(Project VMT) > (VMT threshold) → Significant impact ; mitigations required

(Project VMT) < (VMT threshold) → Not a significant impact ; analysis complete

Use of **KCAG Model** is recommended for project VMT estimation.

Recommended VMT Metrics and Thresholds

Project Type	VMT Metric**	VMT Threshold
Residential	VMT/capita	87% of existing VMT/capita
Office	VMT/employee	87% of existing VMT/employee
Retail	Total VMT	No net increase in total VMT
Mixed-Use, Land Use Plan (General Plan/Specific Plan)	Respective VMT metrics for its different land use components	Mixed-use: respective thresholds for the various land use components; Land Use Plans: the existing Kings County average baseline VMT per capita, VMT per employee, and VMT per service population will be used.
Hotel, Hospital, Medical Office Building, or any similar use with approval from the City	VMT/service population	87% of existing regional VMT/service population
Other Land Uses	VMT/employee	87% of existing regional VMT/emp
Transportation	VMT attributable to project	VMT attributable to project > 0

**For the City of Lemoore, the VMT metric will be used for CEQA purposes, but the LOS metric will still be used to determine necessary roadway infrastructure and traffic operations improvements.

VMT Mitigation : Regional Opportunities

VMT mitigations are relevant in the context of the “Region”

Regional solutions may be required
(not feasible at project-level)

Examples :

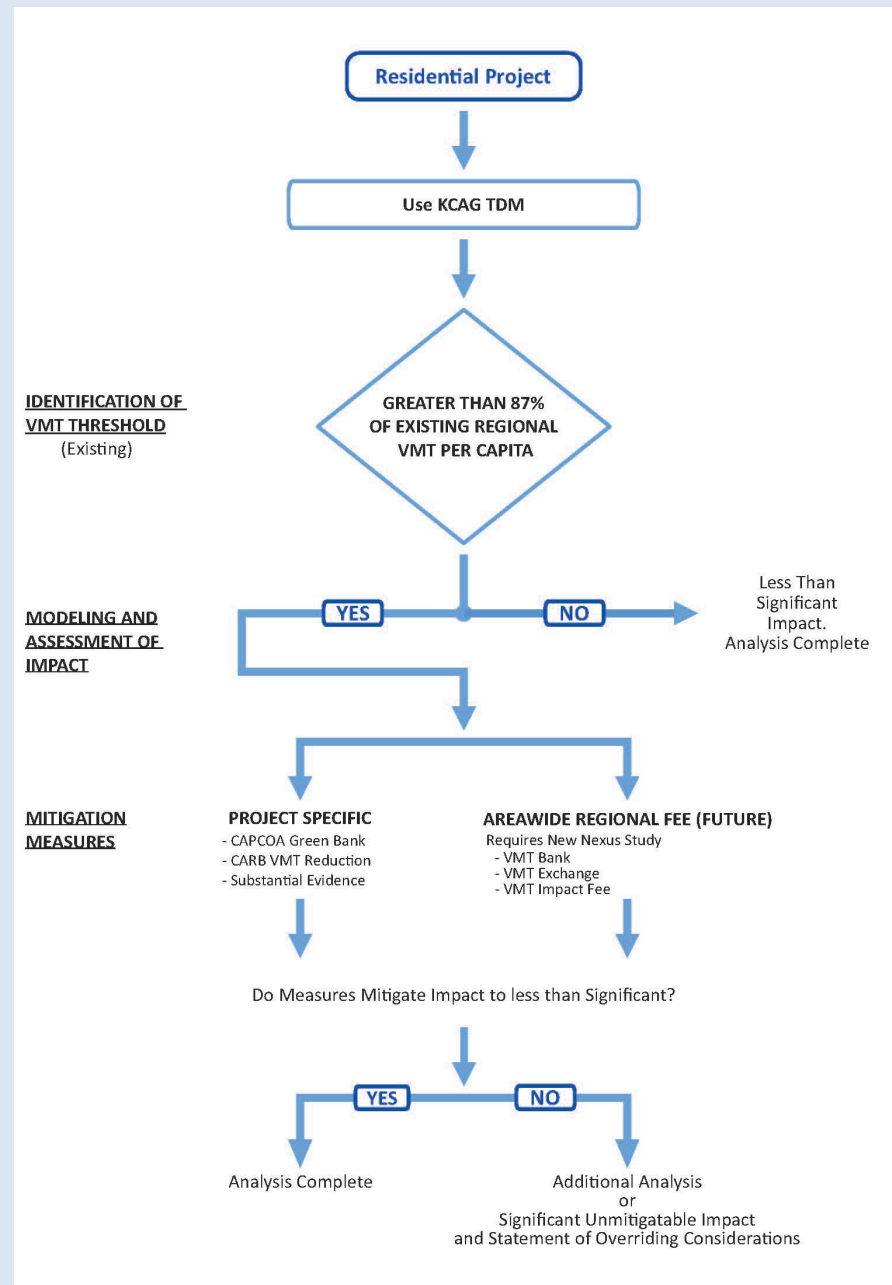
- Completion of transit system
- Purchase of more transit buses
- Gap closure of bicycle master plan

can be achieved by

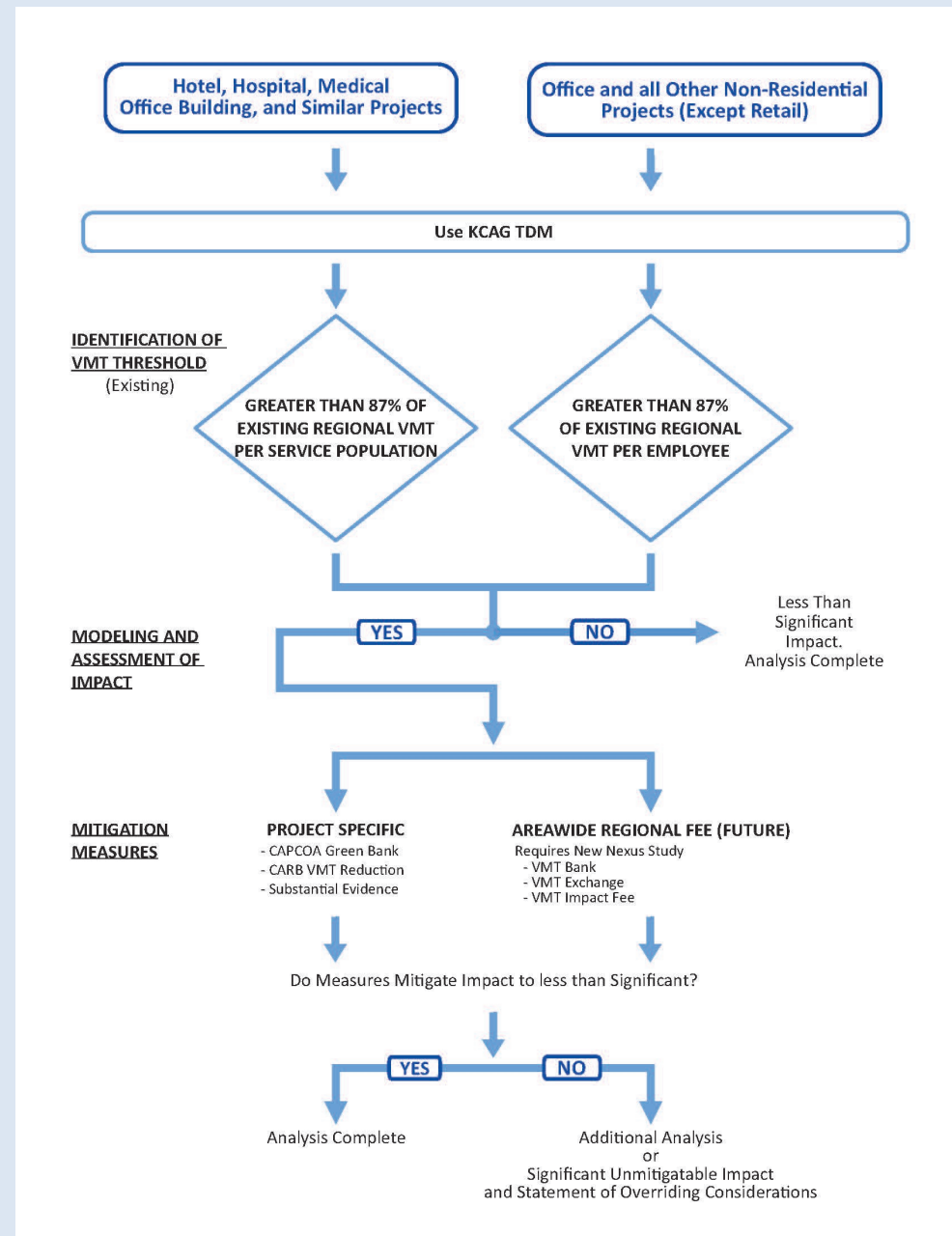
VMT Mitigation Banks/Fees/Exchanges

- Projects contribute **fees** towards programs aimed to reduce regional VMT
- Effectively **reduce regional VMT, GHG** towards State’s climate goals

VMT Analysis Methodology for Non-Screened Residential Projects



VMT Analysis Methodology for Non-Screened Non-Residential (Non-Retail) Projects



VMT Analysis Methodology for Non-Screened Non-Residential (Retail) Projects

