



# Caltrans Draft Transportation Analysis Framework (TAF)

Caltrans TAF Webinar | May 11, 2020

# Welcome

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- Welcome and Introductions
- Presenters –
  - Ellen Greenberg, Deputy Director, Sustainability
  - Zhongren Wang, Traffic Operations Lead, Caltrans SB 743 Implementation Working Group
  - Chris Schmidt, SB 743 Program Manager (Co-Host)
- Submit questions via chat feature to “questions”
- View Draft TAF online at: (<https://dot.ca.gov/programs/transportation-planning/office-of-smart-mobility-climate-change/sb-743>)

# Topics for Today

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- What is SB 743?
- Connecting the dots...SB 743 + Climate Change
- TAF Overview
- Questions & Answers
- Next Steps

# What is SB 743?

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SB 743 (Steinberg, 2013) amended the California Environmental Quality Act (CEQA) and is codified as Public Resources Code § 21099.

It better aligned CEQA with State climate and planning goals.

It is **changing CEQA analysis of transportation impacts associated with both land development and infrastructure projects.**

CEQA Guidelines were amended December 2018 to reflect passage of SB 743. Now Caltrans is preparing related guidance.

# Why We're Here...

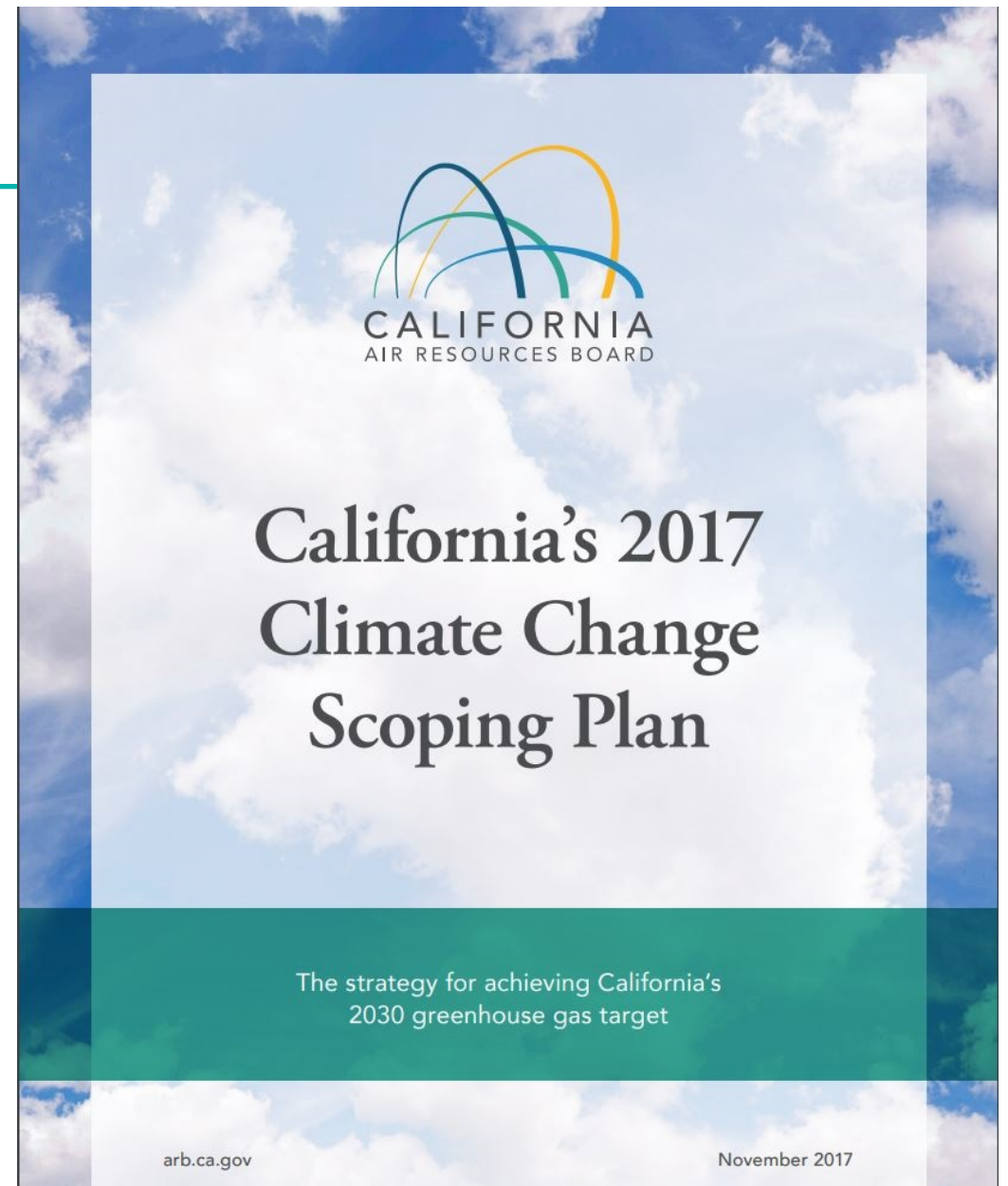
Connecting the dots on SB 743 and  
Climate Change

# Connecting the Dots

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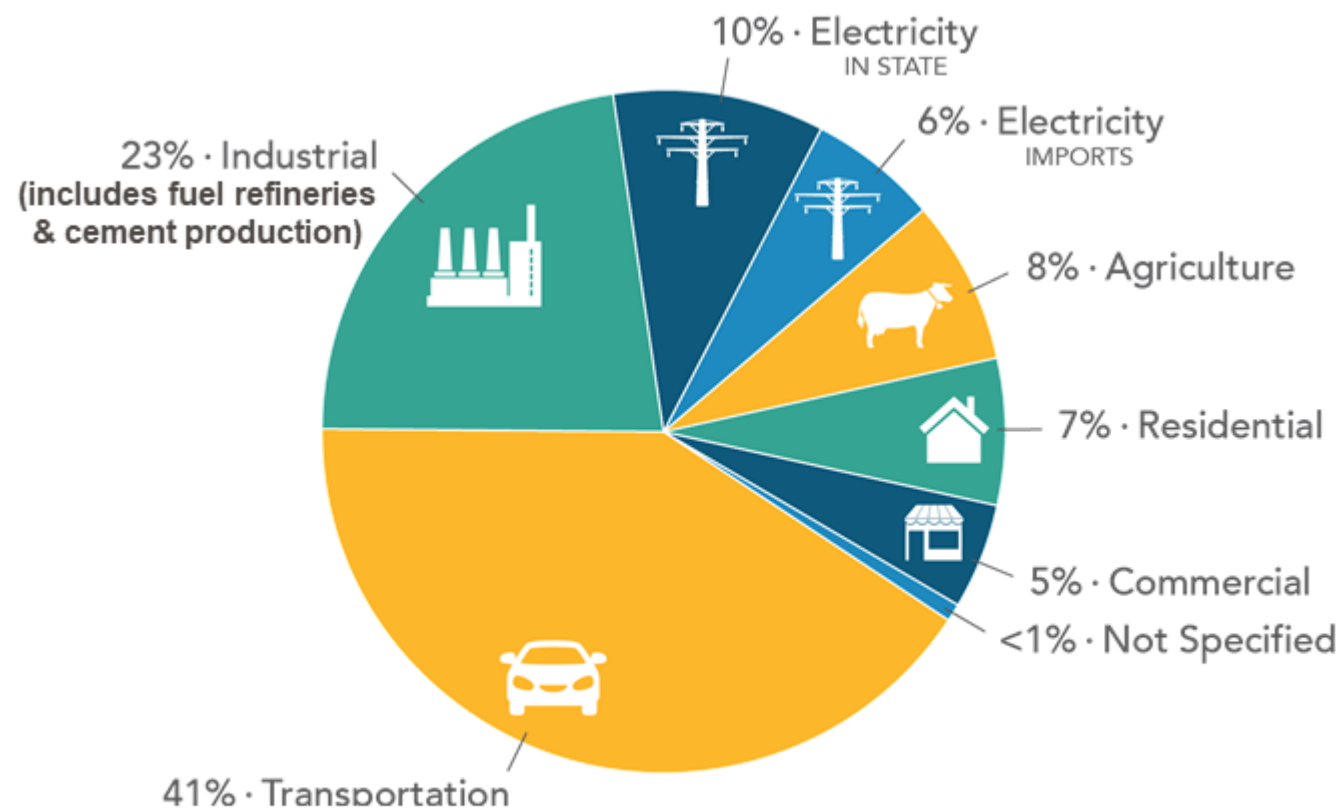
The State's plan for meeting our climate commitments is the 2017 "Scoping Plan" prepared by the Air Resources Board (ARB).

Implementing SB 743 is part of that larger effort.



# California GHG Emissions

Transportation emissions from the transportation and industrial sectors together account for half of statewide emissions of harmful greenhouse gases



**41% TRANSPORTATION  
(tailpipe emissions)**

(Source: CARB, 2018. ["California GHG inventory for 2016--by economic sector."](#))

# Reducing Transportation Emissions

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The Scoping Plan's overall transportation sector GHG reduction strategy has three main components:

- Increasing zero emission vehicles
- Converting to cleaner fuels in conventional vehicles
- **Reducing Vehicle Miles Traveled (vehicle use)**

Reducing vehicle miles traveled is the focus of SB 743.



# Desired Outcomes

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SB 743 is part of a broader set of state initiatives to achieve climate and environmental goals in ways that support healthy people and a prosperous economy

SB 743 contributes to the desired outcomes by:

- streamlining infill and Transit Oriented Development (TOD)
- supporting more walking, bicycling and transit use
- helping to move away from auto dependency, and
- addressing a primary contributor to traffic delay

# Need to know: SB 743

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- CEQA transportation analysis is changing
- CEQA Guidelines updated
- OPR's Technical Advisory provides guidance
- Agencies update their own CEQA procedures
- Caltrans is updating our CEQA procedures with our guidance

# What Changed in the CEQA Guidelines?

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## **For Transportation Projects:**

- Vehicle Miles Traveled (VMT) is generally the most “appropriate measure” to evaluate transportation impacts
- Projects that reduce VMT are presumed to have a less than significant impact
- For roadway capacity increasing projects, agencies may choose the appropriate measure of transportation impact consistent with CEQA
- **Caltrans has chosen to use VMT for projects on the state highway system**

# Caltrans SB 743 Implementation

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Caltrans has two focus areas for SB 743 implementation:

## **1. Land Use Projects**

Our review of land use projects, through the Local Development- Intergovernmental Review (LD-IGR) Program

## **2. Transportation Projects: today's focus**

Delivery of projects on the State Highway System

Note: local agencies may select different approaches for CEQA analysis of local street and road projects.

# Guidance Materials Being Prepared

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## **Land Use Project Review – Guidance Document**

- Transportation Impact Study Guide (TISG)

## **Transportation Project Analysis – Guidance Documents**

- Transportation Analysis Framework (TAF)
- Transportation Analysis under CEQA (TAC)

## **Resources for VMT mitigation**

# TAF Overview

# Purpose of the TAF

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- Establishes new Caltrans procedures for analysis of transportation impacts of projects on the state highway system using methodologies that align with the OPR Technical Advisory on Evaluating Transportation Impacts in CEQA

NOTE: The TAF is not to be used for NEPA analyses or other CEQA analyses (such as air quality and noise).

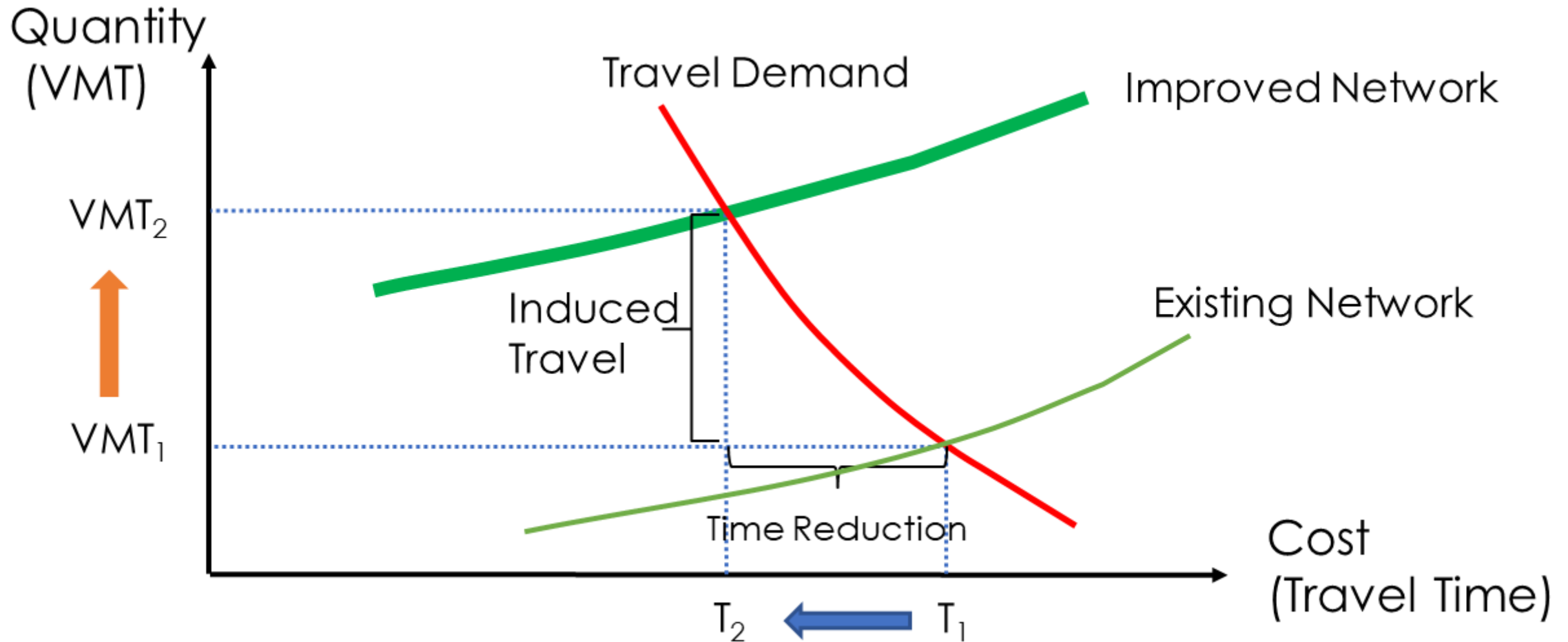
# Induced Travel Overview

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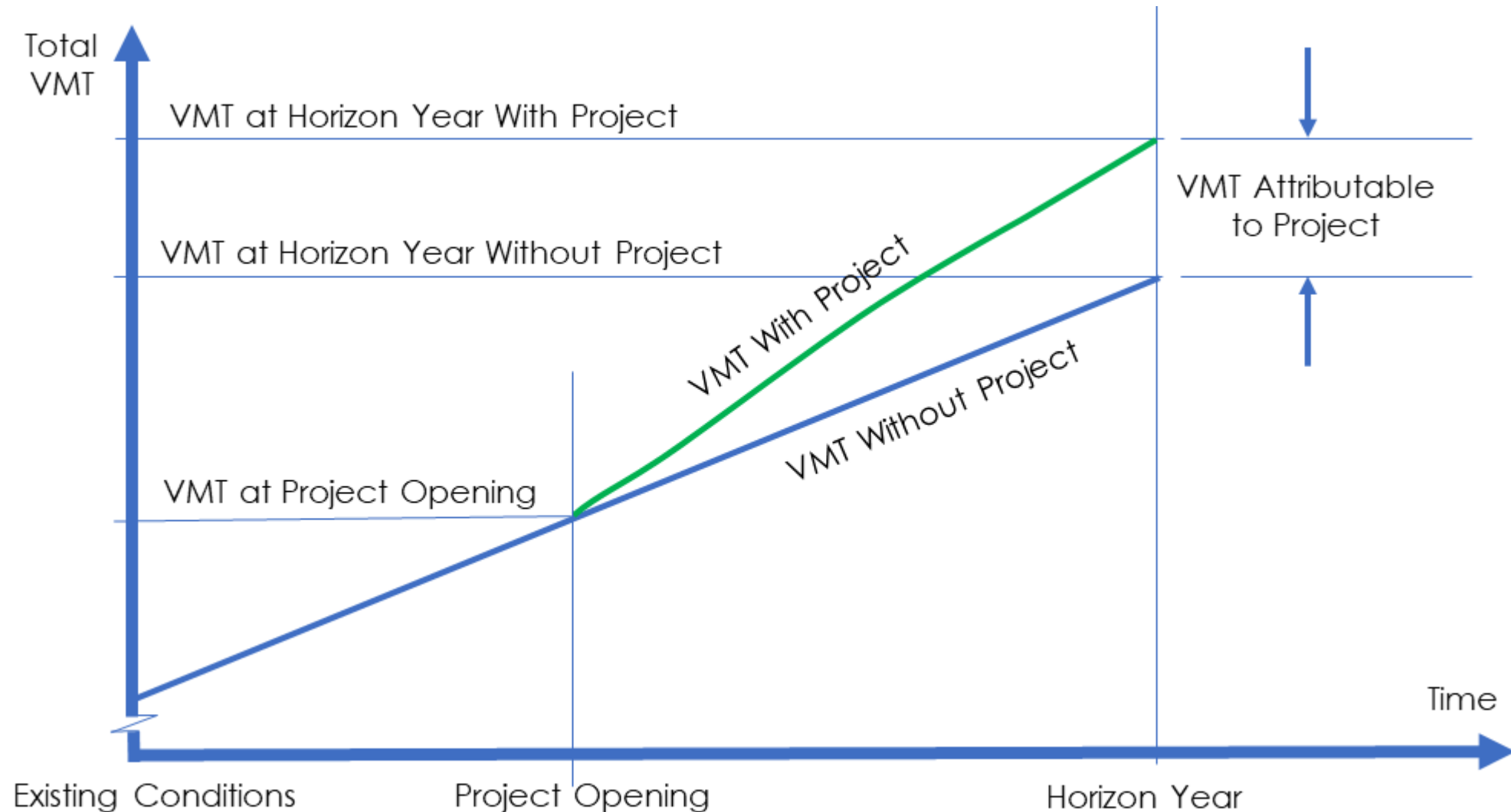
- Central topic in the TAF
- Defined as VMT attributable to a specific project
- Conceptual diagrams will be used to illustrate the concept for better understanding:
  - **Reduced travel time (lower cost) related to capacity expansion leads to more driving**
  - Induced Travel is driver's responses to reduced "cost"



# Induced Travel: Driver Response to Reduced “Cost”



# Induced Travel: VMT Attributable to Project



# Induced Travel: Responses to Reduced Travel Cost

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- **Driver Behavior Change**
  - Route changes (increase or decrease VMT)
  - Mode shift (increases or decreases VMT)
  - Longer trips (increases VMT)
  - More trips (increases VMT)
- **Land use change**
  - More dispersed development (increases VMT)

# Project Types Not Resulting in Induced Travel

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- Many project types will not result in induced travel
- The TAC describes the screening step that will identify projects not requiring induced travel analysis
- There are project types listed in the OPR Technical Advisory and generally include road maintenance and repair work, transit and active transportation projects, and safety and operational improvement projects.

**OPR and Caltrans are open to adding project types based on feedback received.**

(Source: OPR Technical Advisory, 2019, [http://opr.ca.gov/docs/20190122-743\\_Technical\\_Advisory.pdf](http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf) )

# Approaches for Induced Travel Assessment

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## **NCST Induced Travel Calculator**

- Working with NCST to refresh the calculator with more data

## **Travel Demand Models**

- Models vary in their abilities to assess induced travel impacts

## **Qualitative Assessment**

# Applicability of Induced Travel Assessment Approaches

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## **For Non-VMT Inducing Projects**

- Screen out Narrative Discussions

## **For VMT Inducing Projects**

- Applicability matrix (next slide)

# For VMT-Inducing Projects: The Applicability Matrix

|                       |  | Interstate Freeway<br>GP or HOV Lane Addition   | Other State Facilities<br>GP or HOV Lane Addition | Other VMT Inducing<br>Projects |
|-----------------------|--|---|---|--------------------------------|
| MPO<br>County         | Counties in<br>Metropolitan<br>Statistical Area<br>(MSA) | NCST+TDM  |   | TDM                            |
|                       | Counties Not in MSA                                      | TDM   | NCST+TDM  | TDM                            |
| Non-<br>MPO<br>County | With Congestion  | TDM   |   |                                |
|                       | Without congestion                                       | Qualitative Assessment of likely<br>VMT impacts |   |                                |

# When Both NCST and Travel Demand Models are Used

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- Some project/alternatives may have two estimates of induced demand while others may have only one estimate
- A reconciliation of results may be necessary
- **Supplemental material will provide guidance on reconciling output from the two methodologies**

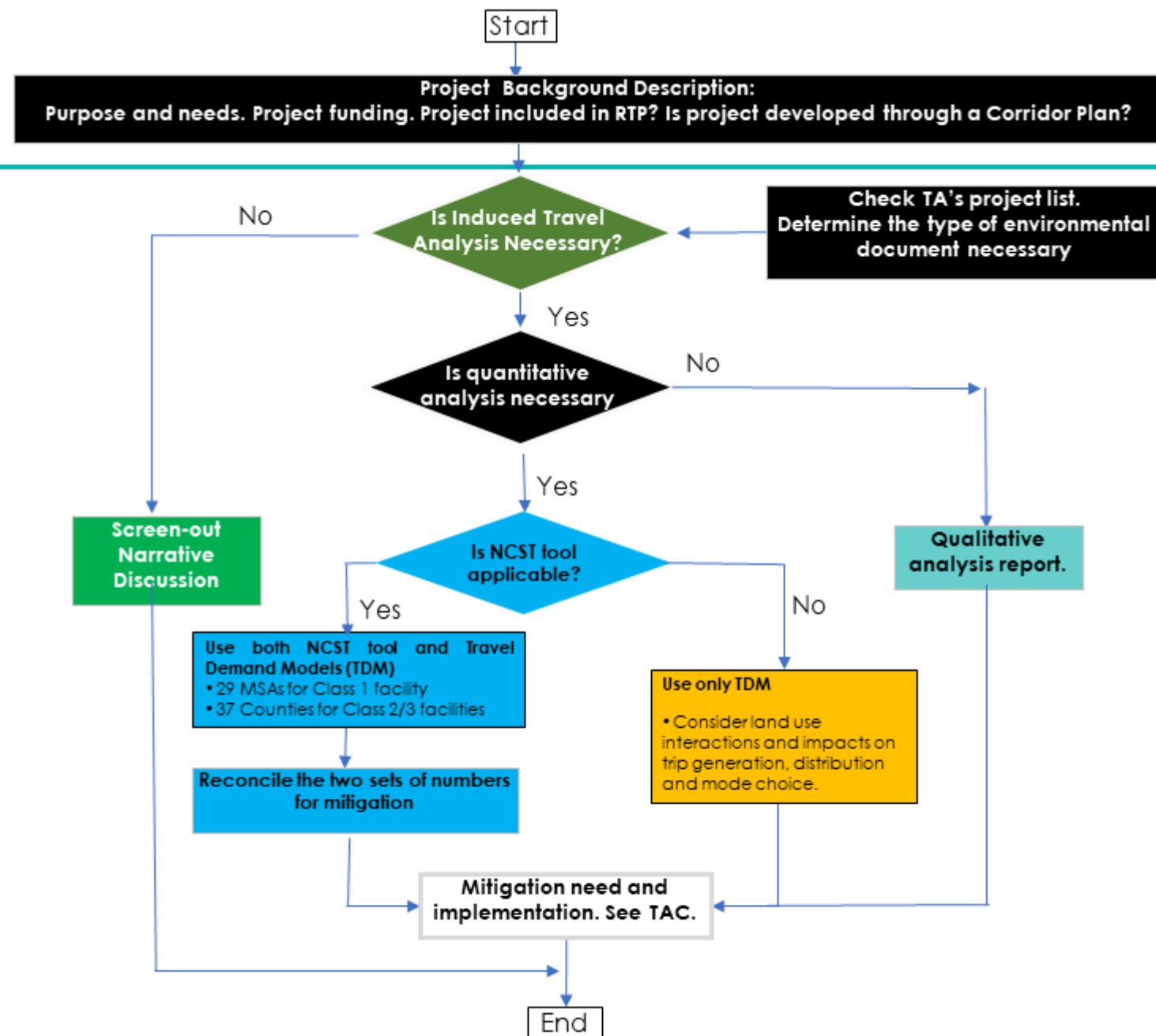


# When is a Qualitative Approach Acceptable?

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- Two cases where a qualitative approach may be acceptable:
  1. Project is unlikely to lead to substantial or measurable increase in VMT (such as rural counties without congestion).
  2. Existing models or methods are not available (Subdivision (b)(3) of CCR Section 15064.3)
- TAC contains further guidance as to when a qualitative analysis is sufficient.

# The Logic of Analysis using TAF/TAC



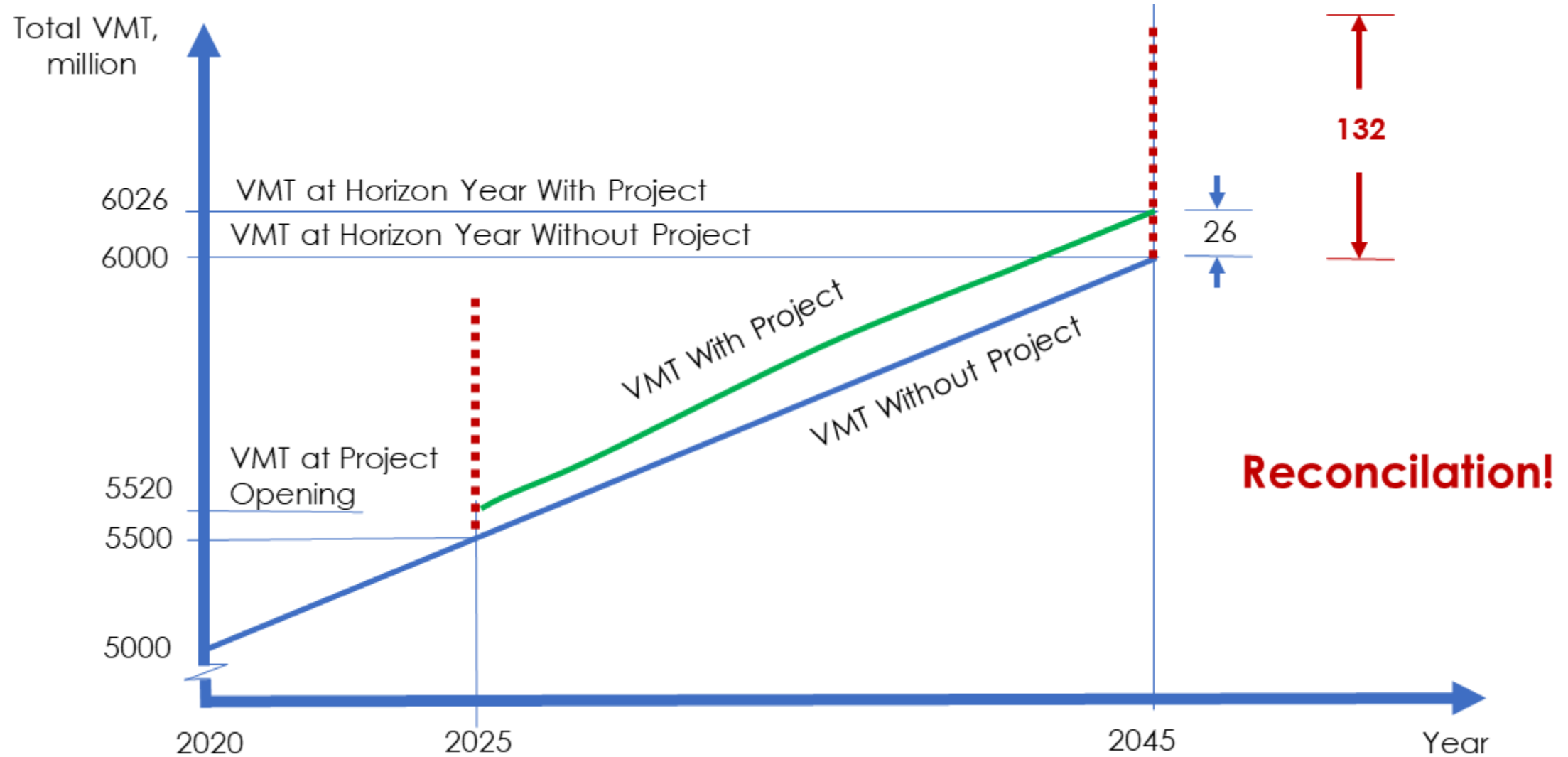
# Example Project

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## Urban Freeway Widening with 4 Alternatives – Class 1 Interstate Facility

- Alternative 1: General Purpose Lanes
- Alternative 2: HOV Lanes
- Alternative 3: Express/HOT Lanes
- Alternative 4: No-Build

# Example Project: The GP Lane Alternative



# Example Project: Induced Travel Analysis Summary

| Project Alternative      | Total VMT<br>(Million VMT) | Induced Travel by<br>TDM (Million VMT) | Induced Travel by<br>NCST (Million VMT) |
|--------------------------|----------------------------|--|---|
| 2020 Existing Conditions | 5,000                      | N/A                                    | N/A                                     |
| 2025 No Build            | 5,500                      | 0                                      | N/A                                     |
| 2025 Add GP Lanes        | 5,520                      | 20                                     | 132                                     |
| 2025 Add HOV Lanes       | 5,510                      | 10                                     | 132                                     |
| 2025 Add HOT Lanes       | 5,515                      | 15                                     | N/A                                     |
| 2045 No Build            | 6,000                      | 0                                      | N/A                                     |
| 2045 Add GP Lanes        | 6,026                      | 26                                     | 132                                     |
| 2045 Add HOV Lanes       | 6,022                      | 22                                     | 132                                     |
| 2045 Add HOT Lanes       | 6,024                      | 24                                     | N/A                                     |



# Questions & Answers

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The responses to the questions in this webinar are based on the current draft document and available information as of May 11.

# TAF – Next Steps in 2020

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- May 11th – Today's TAF webinar
- June 15th – COB deadline to submit informal feedback
- May – September – TAF training
- August – Final TAF is posted
- Sept. 15<sup>th</sup> – Full Caltrans implementation for all capacity increasing projects on the SHS



A background image showing a cyclist in a white shirt, dark shorts, a black helmet, and sunglasses riding a bicycle across a crosswalk. In the background, a white bus is visible with the text 'NOT IN SERVICE' on its destination sign. The image is partially obscured by a diagonal teal and white graphic element.

Thank You!