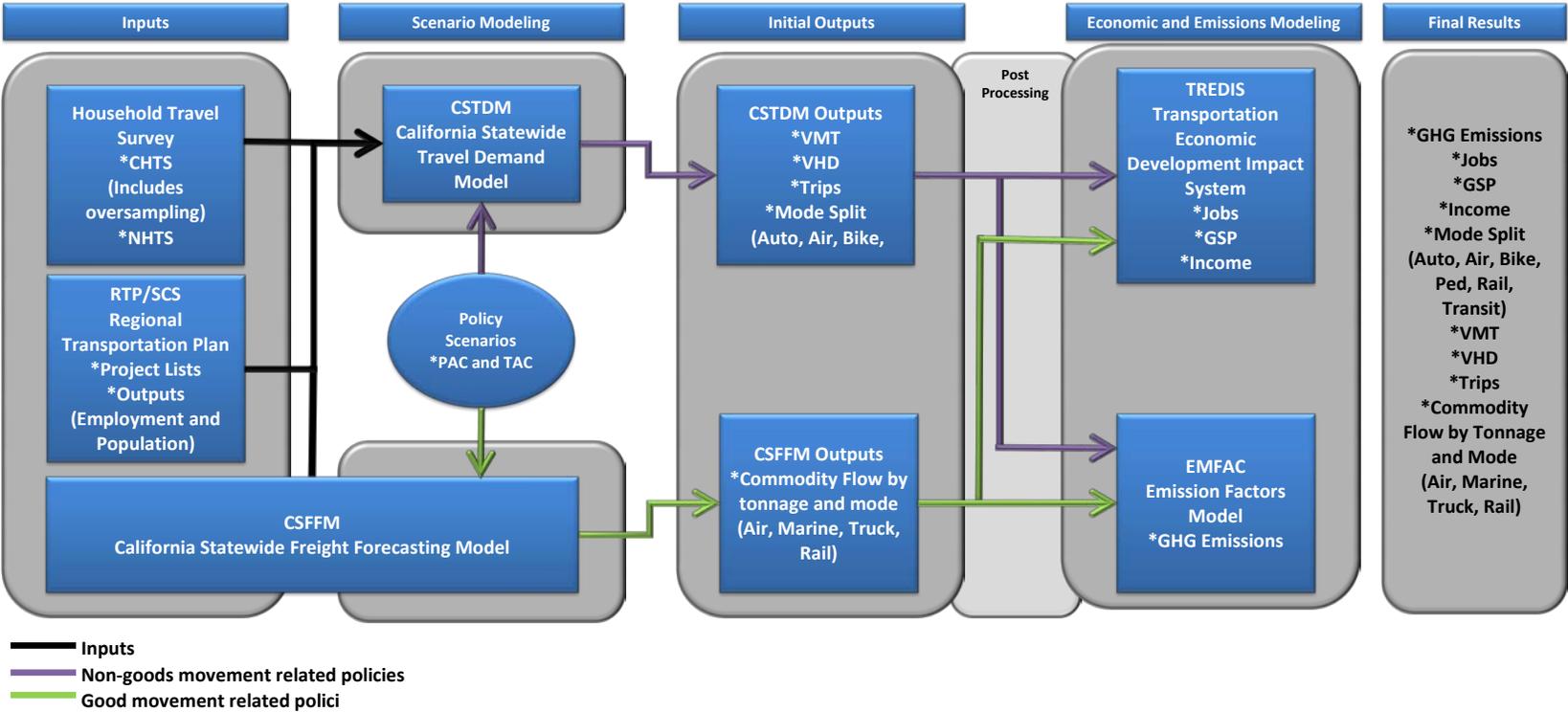


CTP 2040 Modeling and Policy Scenario Development Flow Chart



CHTS=California Household Travel Survey
 NHTS=National Household Travel Survey
 RTP=Regional Transportation Plan
 SCS=Sustainable Community Strategies
 CSTDM=California Statewide Travel Demand Model
 VMT=Vehicle Miles Traveled

VHD=Vehicle Hours of Delay
 CSFFM=California Statewide Freight Forecasting Model
 TREDIS=Transportation Economic Development Impact System
 GSP=Gross State Product
 EMFAC=Emission Factors
 GHG=Greenhouse Gas

**STRATEGIES FOR REDUCING THE IMPACTS OF
SURFACE TRANSPORTATION ON GLOBAL
CLIMATE CHANGE:
*A SYNTHESIS OF POLICY RESEARCH AND STATE
AND LOCAL MITIGATION STRATEGIES***

Requested by:

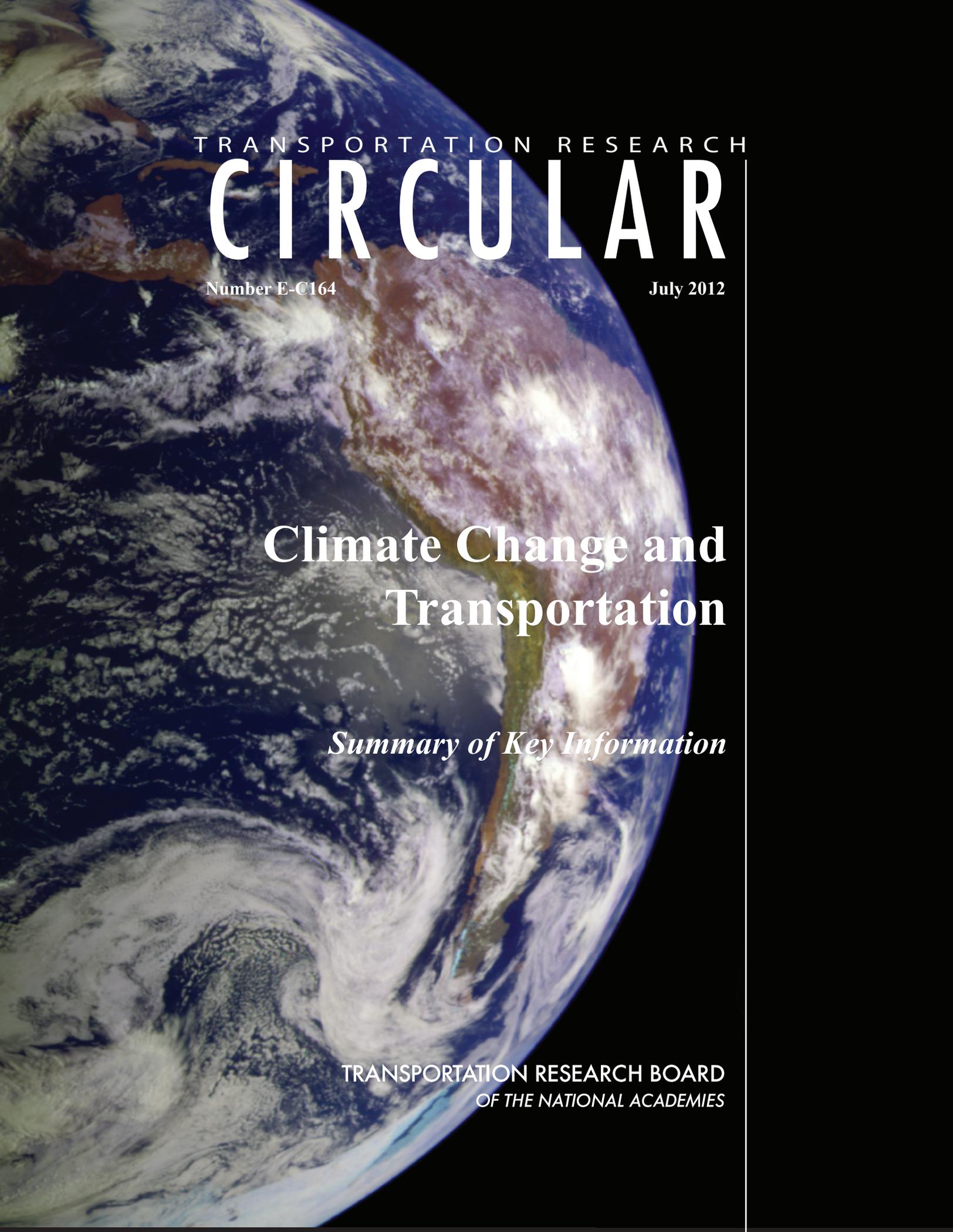
American Association of State Highway
and Transportation Officials (AASHTO)

Prepared by:

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TRANSPORTATION RESEARCH

CIRCULAR

Number E-C164

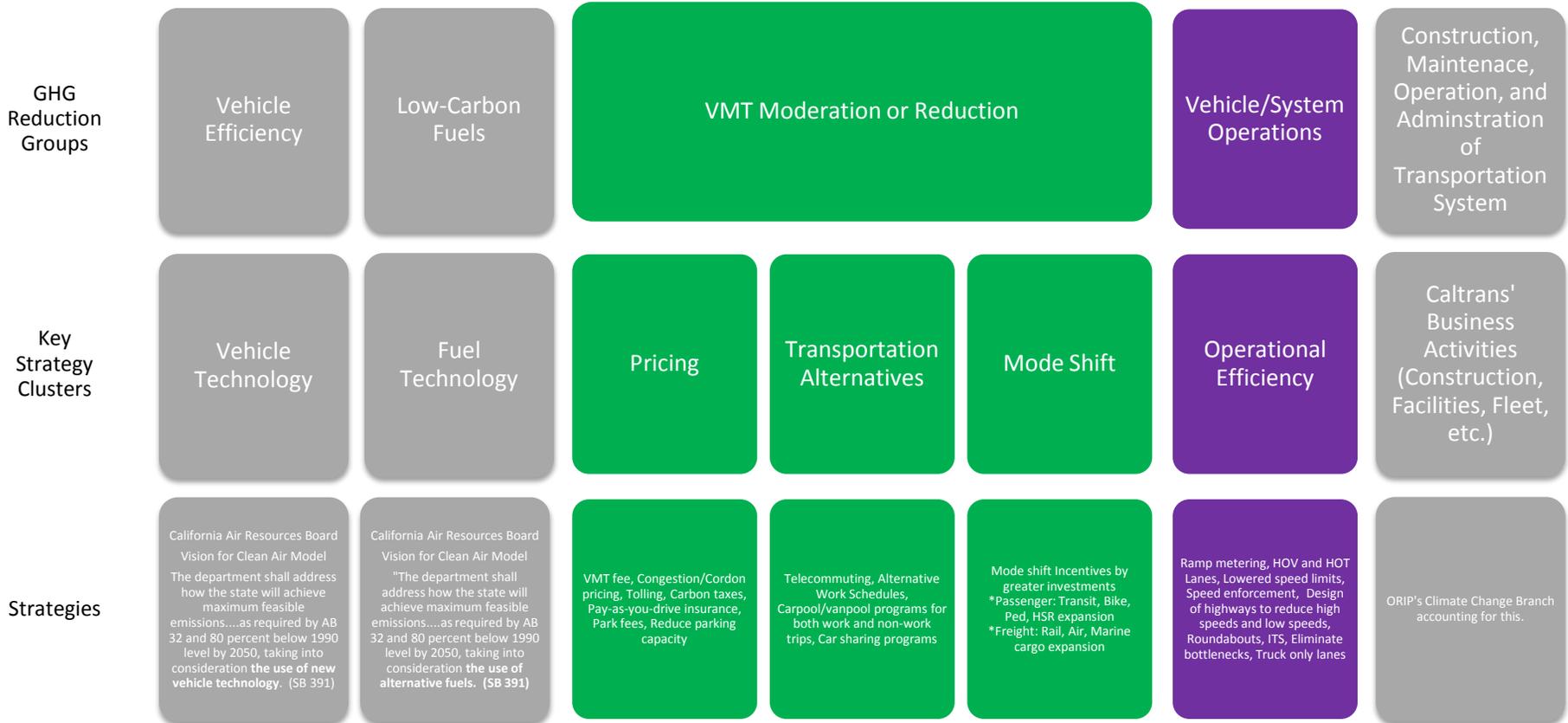
July 2012

Climate Change and Transportation

Summary of Key Information

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

Surface Transportation GHG Reduction Strategies Framework



References:

- NCHRP Project 20-24(59) – Strategies for Reducing The Impacts of Surface Transportation on Global Climate Change: *A Synthesis Of Policy Research and State and Local Mitigation Strategies*
- Transportation Research Circular E-C164 – Climate Change and Transportation *Summary of Key Information*

Surface Transportation GHG Reduction Strategies

<u>VMT Reduction</u>	
Strategy	Comments
<u>Pricing</u>	
Mileage-based highway user fee (VMT Fee)	
Congestion Pricing	
Cordon Pricing	
Tolling	
Carbon taxes or cap-and-trade programs that raise fuel prices	
Pay-as-you-drive insurance	
Parking fees	
Reduce parking capacity	
Others	
<u>Transportation Alternatives</u>	
Telecommute programs Alternative Work Schedules	
Carpool/vanpool programs for both work and non-work trips	
Car sharing programs	
Others	
<u>Mode Shift</u>	
Expand transit, bike, pedestrian, HSR services	
Expand rail, air, marine freight cargo like doublestack trains	
Others	

References:

- NCHRP Project 20-24(59) – Strategies for Reducing The Impacts of Surface Transportation on Global Climate Change: *A Synthesis Of Policy Research and State and Local Mitigation Strategies*
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Vehicle/System Operations

Strategy	Comments
<u>Operational Efficiency</u>	
Ramp metering	
HOV and HOT lanes	
Lowered speed limits	
Speed enforcement	
Design of highways to reduce high speeds and low speeds	
Roundabouts	
Traffic management to suppress shock waves after traffic interruptions	
Electric plug-ins for truck auxiliary equipment at rest stops	
Other programs to reduce HDV and LDV idling	
Real-time MPG readouts on dashboards	
ITS traffic management centers and ITS traveler information systems	
Adaptive traffic signal control systems	
Faster incident response to clear traffic incidents	
Elimination of highway bottlenecks	
Truck only lanes	
Others	

References:

- NCHRP Project 20-24(59) – Strategies for Reducing The Impacts of Surface Transportation on Global Climate Change: *A Synthesis Of Policy Research and State and Local Mitigation Strategies*
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