APPENDIX B: ABOUT THE TCR

BACKGROUND

TCR guides the development of California's state highway system (SHS) as required by Government Code 65086, Title 23 CFR Part 450 Subpart B, and the transportation needs of the public, stakeholders, and SHS users. A comprehensive TCR for each highway route and the corresponding transportation corridor provides a focused look at the existing conditions and performance of the route, future transportation needs and demands, and improvements necessary to address those needs within the context of the communities and rural areas the highways traverse. Each Caltrans district is delegated the responsibility to create a TCR for each SHS route within their boundaries. The purpose of a TCR is to:

- Report on a range of performance measures.
- Provide a 20 to 25+ year concept and ultimate concept for how each State Highway System corridor should operate and possible improvements to obtain those operating conditions across all modes of transportation.
- Provide a basis for Caltrans' initial input into the regional transportation planning process and nomination of SHS projects for funding.
- Provide the basis for evaluating local government and developer requests for highway improvements and mitigation for local development.
- Provide future system goals for guiding operational improvements.

The goal of the TCR is to present a long-range concept for, and relevant data about, a corridor or route to inform decisions made regarding the management of the transportation network, all toward meeting the goals of safety and health; stewardship and efficiency; sustainability, livability and economy; system performance; and organizational excellence. These goals enable the TCR to be a relevant and useful tool for a broad audience, such as regional and local transportation agencies, tribal governments, external stakeholders, partner agencies, and related Caltrans functional units.

TCRs are one component of Caltrans' transportation planning process called System Planning which serves as the foundation for project initiation and programming. Other statewide and district specific System Planning efforts that influence TCRs include: the California Transportation Plan (CTP), the Interregional Transportation Strategic Plan (ITSP), the District System Management Plan (DSMP) and Project List, and Corridor System Management Plans (CSMPs). *Figure 2.1* illustrates the geographic scope of these planning efforts.

- California Transportation Plan: The state-wide CTP is a long-range transportation plan to meet our future mobility needs and reduce greenhouse gas emissions. The CTP defines performance-based goals, policies, and strategies to achieve our collective vision for California's future, statewide, integrated, multimodal transportation system. The CTP is prepared in response to federal and state requirements.
- Interregional Transportation Strategic Plan: The state-wide ITSP was written in response to the passage of SB 45 in 1997 to identify transportation corridors to focus investment for the Interregional Transportation Improvement Program (ITIP). This five year program is funded by twenty five percent of State Transportation Improvement Program (STIP) revenues approved by the California Transportation Commission (CTC).
- District System Management Plan: The district-wide DSMP is a strategic policy and planning document that focuses on maintaining, operating, managing, and developing the transportation system. The DSMP Project List is a list of planned and partially programmed transportation projects used to recommend projects for funding.
- Corridor System Management Plan: The route specific CSMP is a multi-jurisdictional planning document that identifies future needs within corridors experiencing or expected to experience high levels of congestion. CSMPs often provide a more focused analysis of a portion of a route and are required for any project in the state receiving Proposition 1B Corridor Mobility Improvement Account (CMIA) and State Route (SR) 99 Bond Program funding.

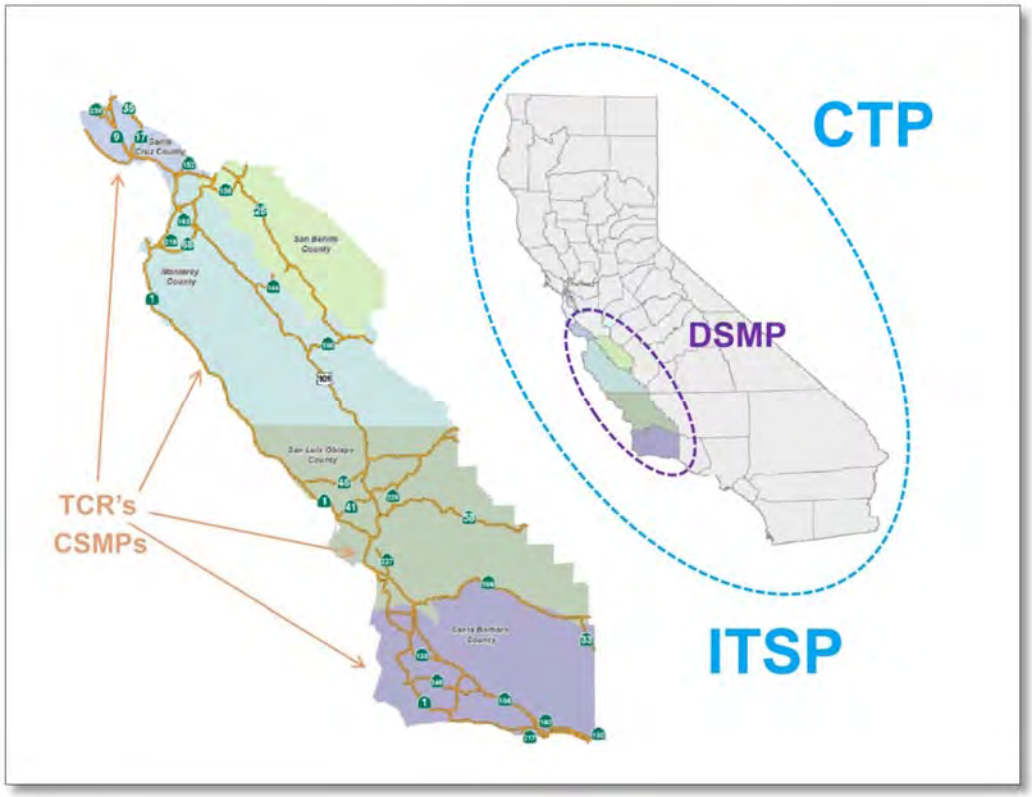


Figure B1: Scope of System Planning Products

The TCR is a report, and is not considered a plan under the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) process. Individual projects and sets of projects will be subject to NEPA/CEQA as they are developed and projects included in a RTP will be part of the plans programmatic Environmental Impact Report (EIR). Although an environmental document is not required for a TCR, environmental considerations still need to be adequately addressed in the planning process per SAFETEA-LU Section 6001 and MAP-21.

TCR Relationship with Regional and Local Planning Efforts:

Complementary transportation planning efforts exist between state, regional and local governments. These efforts have a unique scope and focus but often have overlapping objectives that, when integrated, contribute to a continuing, cooperative and comprehensive planning process.

It is the intent of all TCRs to coordinate with local and regional planning efforts. General plan circulation elements, bicycle and pedestrian master plans, transit studies, RTP-SCS, and other comprehensive corridor studies are a few examples of the types of efforts that were influential in the development of this report. The scope of a TCR is unique to the planning efforts listed above as it is the only plan that focuses long-term mobility of a single State Route on an interregional scale.

As the owner-operator of the State Highway System, Caltrans maintains its TCRs to guide long-range planning for individual routes. The TCR evaluates current trends, anticipates future demand and identifies a vision in the form of a facility concept to meet that demand. It is a diagnostic and prognostic tool to inform decision making about future needs and investments to improve the system for the future.

Table B.1: RTP/MTP-SCS and TCR Relationship

Characteristics	RTP/MTP-SCS	TCR
Transportation System Analysis	Yes	Yes
Corridor Focus	No	Yes
Scope	Regional	Local
Sustainability Component	Yes	Yes
Multimodal Perspective	Yes	Yes
Horizon Year Projections	Yes	Yes
Future Growth Scenarios	Yes	No
Ultimate Facility Concept	No	Yes
Fiscal Constraint	Yes	No
Considers other Planning Documents	Yes	Yes
Informs Decision Makers about Transportation Systems Needs	Yes	Yes
Establishes Transportation Policies	Yes	No
Leads to Project Programming	Yes	No

Regional Planning:

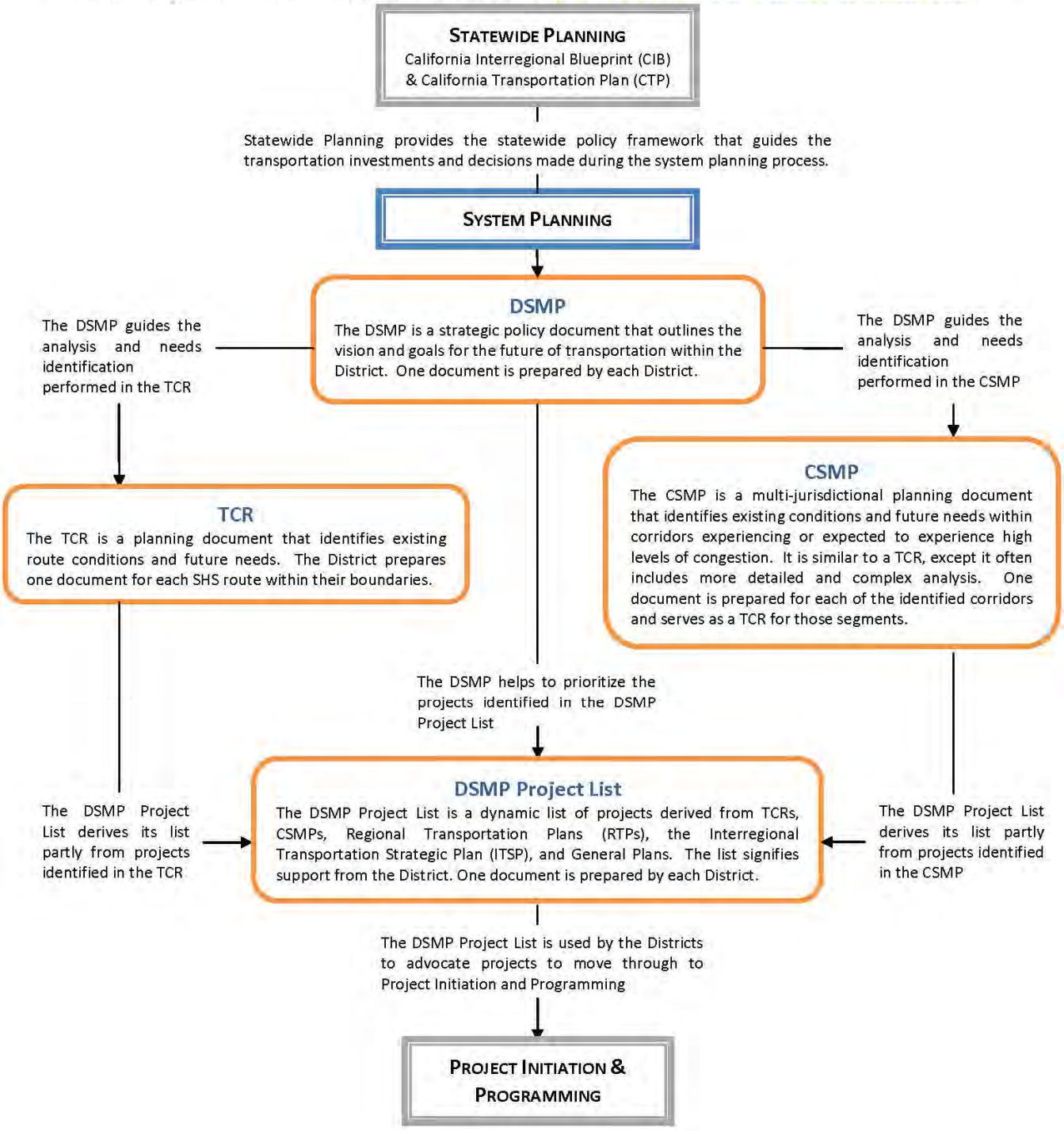
RTP-SCS and MTP-SCS play an instrumental role in the development of a TCR. These plans evaluate integration of land use and transportation policies and programs to achieve lower greenhouse gas emissions as directed through Senate Bill 375. The RTP/MTP-SCS introduces complexity beyond the TCR. The RTP/MTP-SCS outlines a comprehensive set of transportation needs for the larger transportation network within a region. Moreover, the RTP/MTP superimposes fiscal constraint to achieve the regional vision for transportation into the future, considering all modes and the entire network of transportation systems.

The TCR serves primarily as a technical document to identify projected future deficiencies of SR 144 and provides recommendations and goals to be further considered within the RTP-SCS process. The RTP-SCS considers overall needs, and applies regional priorities and funding constraints to establish an action plan for making specific transportation improvements. The RTP -SCS and TCR have different and overlapping objectives and scope but are complementary to guide decision making in support of transportation facilities that sustain mobility into the future.

The TCR identifies the potential for needs to arise within a planning horizon and beyond. The TCR also identifies improvements that could address long-term need. But unlike the RTP-SCS, the TCR is not a document that leads directly to project programming.

SYSTEM PLANNING FLOW CHART

System Planning is Caltrans long-range (20-25 years) transportation planning process to evaluate current & future operating conditions & deficiencies on the State Highway System (CA Gov. Code 65086). The system planning process is made up of four documents, the District System Management Plan (DSMP), the Transportation Concept Report (TCR), the Corridor System Management Plan (CSMP), and the DSMP Project List. System planning is just one aspect of transportation planning that feeds into project initiation and programming, many activities within transportation planning work together to bring projects to completion. The development of all system planning products is guided by a variety of federal, state, regional, local, and tribal plans, policies, and informational sources. For more information on system planning please see the California Corridor Mobility website at: http://www.dot.ca.gov/hq/tpp/corridor-mobility/index.html



GLOSSARY OF TERMS AND ACRONYMS

AADT	Annual Average Daily Trips
ADA	Americans with Disabilities Act
APCD	Air Pollution Control District
ARB	Air Resources Board
BRT	Bus Rapid Transit
BTA	Bicycle Transportation Account
BY	Base Year
CCA	California Coastal Act
CCAA	California Clean Air Act
CCC	California Coastal Commission
CCRC	Coast Rail Coordinating Council
CCT	California Coastal Trail
CEQA	California Environmental Quality Act
CHC	California Highway Commission
CO	Carbon Monoxide
CSMP	Corridor System Management Plan
CTC	California Transportation Commission
CTP	California Transportation Plan
DSMP	District System Management Plan
EIR	Environmental Impact Review
EPA	Environmental Protection Agency
FCAA	Federal Clean Air Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Programs
GHG	Greenhouse Gases
GMAP	Goods Movement Action Plan
HOT	High Occupancy Toll (lane)
HOV	High Occupancy Vehicle
HY	Horizon Year
IP	Implementation Plan
ISTEA	Intermodal Surface Transportation Efficiency Act
ITSP	Interregional Transportation Strategic Plan
LCP	Local Coastal Program
LOS	Level of Service
LOSSAN	Los Angeles-San Diego-San Luis Obispo Rail Coordinating Council
MPOs	Metropolitan Planning Organizations

MTP-SCS	Metropolitan Transportation Plan
NEPA	National Environmental Policy Act
NHS	National Highway System
PCBR	Pacific Coast Bike Route
PM	Post Miles
ROW	Right-of-way
RTP	Regional Transportation Plan
RTPAs	Regional Transportation Planning Agencies
RTP-SCS	Regional Transportation Plan
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SB	Santa Barbara (County)
SBCAG	Santa Barbara County Association of Governments
SBMTD	Santa Barbara Metropolitan Transit District
SCS	Sustainable Communities Strategy
SHOPP	State Highway Operations and Protection Program
SHS	State Highway System
SR	State Route
STAA	Surface Transportation Assistance Act
STIP	State Transportation Improvement Program
STRAHNET	Strategic Highway Network
TAMC	Transportation Agency for Monterey County
TCR	Transportation Concept Report
TDM	Transportation Demand Management
TOD	Transit-Oriented Development
TSDP	Transportation System Development Plan
TSM	Transportation System Management
UPRR	Union Pacific Rail Road
V/C	Volume/Capacity
VC	Ventura (County)
VCTC	Ventura County Transportation Commission
VHT	Vehicle Hours Traveled
VMT	Vehicle Miles Traveled
VPH	Volumes Per Hour

AADT – Annual Average Daily Traffic is the total volume for the year divided by 365 days. The traffic count year is from October 1st through September 30th. Traffic counting is generally performed by electronic counting instruments moved from location throughout the state in a program of continuous traffic count sampling. The resulting counts are adjusted to an estimate of annual average daily traffic by compensating for seasonal influence, weekly variation and other variables which may be present. Annual ADT is necessary for presenting a statewide picture of traffic flow, evaluating traffic trends, computing accident rates, planning and designing highways and other purposes.

Base year – The year that the most current data is available to the Districts.

Bikeway Class I (Bike Path) – Provides a completely separated right of way for the exclusive use of bicycles and pedestrians with cross flow by motorists minimized.

Bikeway Class II (Bike Lane) – Provides a striped lane for one-way bike travel on a street or highway.

Bikeway Class III (Bike Route) – Provides for shared use with pedestrian or motor vehicle traffic.

Bottlenecks – A bottleneck is a location where traffic demand exceeds the effective carrying capacity of the roadway. In most cases, the cause of a bottleneck relates to a sudden reduction in capacity, such as a lane drop, merging and weaving, driver distractions, a surge in demand, or a combination of factors.

Capacity – The maximum sustainable hourly flow rate at which persons or vehicles reasonably can be expected to traverse a point or a uniform section of a lane or roadway during a given time period under prevailing roadway, environmental, traffic, and control conditions.

Capital Facility Concept – The 20-25 year vision of future development on the route to the capital facility. The capital facility can include capacity increasing, State Highway, bicycle facility, pedestrian facility, transit facility (Intercity Passenger Rail, Mass Transit Guideway etc.), grade separation, and new managed lanes.

Corridor – A broad geographical band that follows a general directional flow connecting major sources of trips that may contain a number of streets, highways, bicycle, pedestrian, and transit route alignments. Off system facilities are included as informational purposes and not analyzed in the TCR.

Facility Concept – Describe the Facility and strategies that may be needed within 20-25 years. This can include capacity increasing, State Highway, bicycle facility, pedestrian facility, transit facility, Non-capacity increasing operational improvements, new managed lanes, conversion of existing managed lanes to another managed lane type or characteristic, TMS field elements, Transportation Demand Management and Incident Management.

Facility Type – The facility type describes the State Highway facility type. The facility could be freeway, expressway, conventional, or one-way city street.

Horizon Year – The year that the future (20-25 years) data is based on.

Intermodal Freight Facility – Intermodal transport requires more than one mode of transportation. An intermodal freight facility is a location where different transportation modes and networks connect and freight is transferred (or "transloaded") from one mode, such as rail, to another, such as truck.

ITS – Intelligent Transportation System improves transportation safety and mobility and enhances productivity through the integration of advanced communications technologies into the transportation infrastructure and in vehicles. Intelligent transportation systems encompass a broad range of wireless and wire line communications-based information and electronics technologies to collect information, process it, and take appropriate actions.

LOS – Level of Service is a qualitative measure describing operational conditions within a traffic stream and their perception by motorists. A LOS definition generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruption, comfort, and convenience.

Multi-modal – The availability of transportation options using different modes within a system or corridor, such as automobile, subway, bus, rail, or air.

Peak Hour – The hour of the day in which the maximum volume occurs across a point on the highway.

Peak Hour Volume – The hourly volume during the highest hour traffic volume of the day traversing a point on a highway segment. It is generally between 6 percent and 10 percent of the ADT. The lower values are generally found on roadways with low volumes.

Peak Period – Is a part of the day during which traffic congestion on the road is at its highest. Normally, this happens twice a day, once in the morning and once in the evening; the time periods when the most people commute. Peak Period is defined for individual routes, not a District or statewide standard.

Post-25 Year Concept – This dataset may be defined and re-titled at the District's discretion. In general, the Post-25 Year concept could provide the maximum reasonable and foreseeable roadway needed beyond a 20-25 year horizon. The post-25 year concept can be used to identify potential widening, realignments, future facilities, and rights-of-way required to complete the development of each corridor.

Post Mile – A post mile is an identified point on the State Highway System. The milepost values increase from the beginning of a route within a count to the next county line. The milepost values start over again at each county line. Milepost values usually increase from south to north or west to east depending upon the general direction the route follows within the state. The milepost at a given location will remain the same year after year. When a section of road is relocated, new milepost (usually noted by an alphabetical prefix such as "R" or "M") are established for it. If relocation results in a change in length, "milepost equations" are introduced at the end of each relocated portion so that mileposts on the reminder of the route within the county will remain unchanged.

Route Designation – A route's designation is adopted through legislation and identifies what system the route is associated with on the State Highway System. A designation denotes what design standards should apply during project development and design. Typical designations include but not limited to National Highway System (NHS), Interregional Route System (IRRS), Scenic Highway System,

Rural – Fewer than 5,000 in population designates a rural area. Limits are based upon population density as determined by the U.S. Census Bureau

Segment – A portion of a facility between two points.

TDM – Transportation Demand Management programs designed to reduce or shift demand for transportation through various means, such as the use of public transportation, carpooling, telework, and alternative work hours. Transportation Demand Management strategies can be used to manage congestion during peak periods and mitigate environmental impacts.

TMS – Transportation Management System is the business processes and associated tools, field elements and communications systems that help maximize the productivity of the transportation system. TMS includes, but is not limited to, advanced operational hardware, software, communications systems and infrastructure, for integrated Advanced Transportation Management Systems and Information Systems, and for Electronic Toll Collection System.

Urban – 5,000 to 49,999 in population designates an urban area. Limits are based upon population density as determined by the U.S. Census Bureau.

Urbanized – Over 50,000 in population designates an urbanized area. Limits are based upon population density as determined by the U.S. Census Bureau.

VMT – Is the total number of miles traveled by motor vehicles on a road or highway segments.

Volume Capacity (V/C) Ratio – Is a comparison of an amount of traffic on a road with capacity of that road. A V/C ratio is expressed as a decimal, with values less that 1.00 indicating that volume is less than capacity, and values more than 1.00 indicating that volume exceeds capacity.