

# 2018 California State Rail Plan

*Connecting California*



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**Edmund G. Brown Jr.**  
Governor

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**Brian C. Annis**  
Secretary

Dear Fellow Californians:

People have come from all over the world to live and work in California and to enjoy our natural and built environments, diverse population and economy, universities, and employment centers. Our transportation system connects these people, places, and goods. To effectively address a growing population and a growing economy, California needs a world-class multimodal transportation system, and a modern rail system is central to this.

A rail renaissance is already underway in California, with the state's three intercity rail services and five commuter rail services seeing significant new investment to make service faster, safer, more frequent, and more customer friendly. California's high-speed rail project is under construction and will fundamentally transform how people travel between our major regions while also providing convenient connections to our existing rail and transit systems. The California State Rail Plan (Rail Plan) will guide the State's priorities for future rail investments with its vision that California will have a premier, customer-focused, integrated rail system that successfully moves people and products while enhancing economic growth and quality of life.

I commend the California Department of Transportation (Caltrans) and its public and private sector partners for the work they have completed to develop a consensus rail vision to guide California. The California State Transportation Agency (CalSTA) has formally approved this Rail Plan.

This Rail Plan identifies ways to leverage investments to grow services in congested corridors, develop new regional rail services, provide customer-friendly connections, integrated ticketing and trip planning, reduce delays and travel times, and attract new riders. With this focus, the Rail Plan expects passenger rail trips to increase more than tenfold by 2040 to over 1.3 million rail trips each day. The Rail Plan also describes how California's rail system will improve its ability to move freight cleanly and efficiently by expanding freight rail capacity to handle a more than doubling of intermodal rail freight demand from ports.

Implementing the Rail Plan will take ongoing effort and coordinated planning between the State and our local agency partners. Ongoing partnerships will be instrumental to delivering the consensus vision of an integrated rail network to meet the State's policy goals of fostering livable communities, generating economic growth, and reducing harmful emissions.

Thank you to everyone who participated in the development of the 2018 California State Rail Plan.

Sincerely,

**BRIAN C. ANNIS**  
Secretary

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## 2018 CALIFORNIA STATE RAIL PLAN

**September 2018**

Prepared for

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## Statewide Rail Stakeholders

We would like to thank the following agencies and consultants:

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**Center for Collaborative Policy**

**Kimley-Horn Associates**

**SMA Rail Consulting + IT**

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### State and Federal Agency Partners

CalSTA  
California Air Resources Board  
California Freight Advisory Committee  
California High Speed Rail Authority  
California Public Utilities Commission  
California Transportation Commission  
Federal Railroad Administration  
Governor's Office of Business and Economic Development (GoBiz)  
National Railroad Passenger Corporation/ Amtrak  
State of Arizona Department of Transportation  
State of Nevada Department of Transportation

### Intercity Passenger Rail and Rail Transit

Bay Area Rapid Transit/BART  
Capitol Corridor Joint Powers Authority/  
Northern California Rail Partners  
Los Angeles – San Diego – San Luis Obispo  
Rail Corridor Agency Joint Powers Authority  
Los Angeles County Metropolitan  
Transportation Authority  
North County Transit District  
Peninsula Corridor Joint Powers Board/Caltrain  
Sacramento Regional Transit/SacRT  
San Diego Metropolitan Transit System  
San Francisco Municipal Transportation Agency/  
MUNI  
San Joaquin Joint Powers Authority/  
Altamont Corridor Express  
Sonoma Marin Area Regional Transit  
Southern California Regional Rail Authority/  
Metrolink  
Valley Transportation Authority  
XpressWest



**Regional Planning Agencies**

California Association of Councils of Governments  
 Metropolitan Transportation Commission  
 Placer County Transportation Planning Agency  
 San Benito Council of Governments  
 San Bernardino Association of Governments  
 San Diego Association of Governments  
 San Francisco County Transportation Authority  
 San Joaquin Valley Regional Policy Council  
 San Luis Obispo Council of Governments  
 Santa Barbara County Association of Governments  
 Santa Cruz County Regional  
 Transportation Commission  
 Sacramento Area Council of Governments  
 Southern California Association of Governments  
 Riverside County Transportation Commission  
 Transportation Agency for Monterey County

**Freight Rail**

California Shortline Railroad Association  
 California Association of Port Authorities/  
 California Airports Council  
 BNSF Railway  
 Genesee & Wyoming Inc.  
 Pacific Merchants Shipping Association  
 Union Pacific Railroad

**Advocates**

California Transit Association  
 California Farm Bureau Federation  
 Local Government Commission  
 The Nature Conservancy

**Tribal Representation**

Native American Advisory Committee  
 Northern California Chairman’s Association  
 Central California Chairman’s Association  
 Southern California Chairman’s Association



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# Acronyms and Abbreviations

AADT	Annual Average Daily Traffic
AAR	Association of American Railroads
AB	Assembly Bill
ACE	Altamont Corridor Express
AC Transit	Alameda-Contra Costa Transit District
Amtrak	The National Rail Passenger Corporation
BART	San Francisco Bay Area Rapid Transit District
BCA	Benefit-Cost Analysis
BNSF	BNSF Railway
BUILD	Better Utilizing Investments to Leverage Development
CAGR	compound annual growth rate
CalSTA	California State Transportation Agency
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBR	crude by rail
CCJPA	Capitol Corridor Joint Powers Authority
CEQA	California Environmental Quality Act
CFAC	California Freight Advisory Committee
CFMP	California Freight Mobility Plan
CFR	Code of Federal Regulations
CHSRA	California High-Speed Rail Authority
CO	carbon monoxide
CO <sub>2</sub>	carbon dioxide
CPUC	California Public Utilities Commission
CSMP	Corridor System Management Plan
CTC	California Transportation Commission
CTP	California Transportation Plan
DMU	Diesel multiple unit
DRMT	Caltrans Division of Rail and Mass Transportation
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMFAC	CARB Emissions Factor model

EMU	electric multiple unit
°F	degrees Fahrenheit
FAF	Freight Analysis Framework
FAF3	Freight Analysis Framework version 3.5
FAST	Fixing America's Surface Transportation
FFY	federal fiscal year
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FY	fiscal year
GDP	Gross Domestic Product
GGRF	Greenhouse Gas Reduction Fund
GHG	greenhouse gas
g/PMT	grams per passenger mile traveled
HDC	High Desert Corridor
HSPTB	High-Speed Passenger Train Bond Program
HSR	High-Speed Rail
I	Interstate
ICTF	Intermodal Container Transfer Facility
INFRA	Infrastructure for Rebuilding America grant program
IRI Program	Intercity Rail Improvement Program
ITA	interagency transfer agreement
ITIP	Interregional Transportation Improvement Program
ITSP	Interregional Transportation Strategic Plan
JPA	Joint Powers Authority
LA Metro	Los Angeles County Metropolitan Transportation Authority
LAUS	Los Angeles Union Station
LAX	Los Angeles International Airport
LCTOP	Low Carbon Transit Operations Program
LOS	Level of Service
LOSSAN	Los Angeles–San Diego–San Luis Obispo Rail Corridor Agency
MAP 21	Moving Ahead for Progress in the 21st Century Act
mph	Mile(s) per hour
MPO	Metropolitan Planning Organization

MTC	Metropolitan Transportation Commission
Muni	San Francisco Municipal Railway
NAAC	Native American Advisory Committee
NATCOP	Native American Tribal Coordination and Outreach Plan
NCTD	North County Transit District
NISSP	Network Integration Strategic Service Planning
NO <sub>x</sub>	nitrogen oxide
O&M	Operation and Maintenance
OCTA	Orange County Transportation Authority
OTP	on-time performance
OTS	Office of Traffic Safety
P3	public-private partnership
PCJPB	Peninsula Corridor Joint Powers Board
PHMSA	Pipeline and Hazardous Materials Safety Administration
PISOP	Public Involvement and Stakeholder Outreach Plan
PM	particulate matter
PM <sub>2.5</sub>	particulate matter less than 2.5 microns in diameter
PM <sub>10</sub>	particulate matter less than 10 microns in diameter
POLA	Port of Los Angeles
POLB	Port of Long Beach
PPP	Public-Private Partnerships
PRCIP	Passenger Rail Corridor Investment Plan
PRIIA	Passenger Rail Investment and Improvement Act of 2008
PTA	Public Transportation Account
PTC	Positive Train Control
Rail Plan	2018 California State Rail Plan
RCTC	Riverside County Transportation Commission
ROG	reactive organic gases
ROSB	Railroad Operations and Safety Branch
RRIF	Railroad Infrastructure Financing and Improvement Act
RSIA	Federal Rail Safety Improvement Act of 2008
RT	Sacramento Regional Transit
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agency

SAC	Stakeholder Advisory Committee
SANDAG	San Diego Association of Governments
SANDAG Tribal Working Group	San Diego Association of Governments, Interagency Technical Working Group on Tribal Transportation Issues
SB	Senate Bill
SCAG	Southern California Association of Governments
SCCRTC	Santa Cruz County Regional Transportation Commission
SCRRA	Southern California Regional Rail Authority
SCS	Sustainable Communities Strategies
SCVTA	Santa Clara Valley Transportation Authority
SDMTS	San Diego Metropolitan Transit System
SFAP	Sustainable Freight Action Plan
SFMTA	San Francisco Municipal Transportation Agency
SHA	State Highway Account
SJJPA	San Joaquin Joint Powers Authority
SJRRRC	San Joaquin Regional Rail Commission
SLOCOG	San Luis Obispo Council of Governments
SMART	Sonoma-Marín Area Regional Transit District
SRPAA	State Rail Plan Approval Authority
SRTA	State Rail Transportation Authority
STA	State Transit Assistance
STB	Surface Transportation Board
STIP	State Transportation Improvement Program
TAMC	Transportation Agency for Monterey County
TCAG	Tulare County Association of Governments
TCEA	Trade Corridor Enhancement Account
TCEP	Trade Corridor Enhancement Program
TCRF	Traffic Congestion Relief Fund
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIGER	Transportation Investment Generating Economic Recovery
TIRCP	Transit and Intercity Rail Capital Program
TOD	Transit-Oriented Development
UPRR	Union Pacific Railroad
USC	United States Code



U.S. DOT	United States Department of Transportation
U.S. EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
2040 Vision	2040 Passenger Rail Vision
VMT	Vehicle miles traveled

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# Executive Summary



## WHAT IS THE 2018 CALIFORNIA STATE RAIL PLAN?

The Rail Plan establishes a long-term vision for **prioritizing state investment** in an **efficient, effective passenger and freight rail system**, which supports the goals and policies of the California Transportation Plan 2040. The Rail Plan identifies **service goals, capital costs, and a phased strategy** for achieving the Vision. This ambitious plan identifies a coordinated, statewide passenger rail network that will get Californians where they want to go, when they want to go, and enhance the movement of goods by rail to support California's industries and the economy.

**PASSENGER RAIL:** Rail Plan investments will open the door for travelers to **glide past traffic** on reliable trains and buses in dedicated lanes; **transfer quickly and easily** with timed transfers; and to plan an entire, door-to-door trip, even on different trains, using a **single ticket**.

**FREIGHT RAIL:** The Rail Plan establishes state priorities for freight: improving **trade corridors, yards and terminals**, and **access for businesses**; and enhancing the competitiveness of California's ports and intermodal transfer facilities.

## IMPLEMENTATION HIGHLIGHTS

### The Short-Term Plan (2022)

- » Caltrain electrification
- » Committed rail improvements/extensions
- » More bus connections to fill gaps
- » Elimination of existing rail freight bottlenecks
- » Statewide service planning – connect train routes

### The Ten Year Plan (2027)

- » High Speed Rail – Central Valley and Silicon Valley segments
- » More frequencies using available capacity
- » Timed connections between services
- » Fully operational integrated ticketing
- » Rail freight – shared passenger lines, trade corridors

### The Vision (2040)

- » High Speed Rail – Anaheim to San Francisco by 2033
- » High Speed Rail connections – Sacramento, Inland Empire, San Diego
- » New regional rail system connections
- » Regular frequencies & fast services
- » Dedicated rail freight capacity



# Statewide Map

## Rail Plan Vision

California has a premier, customer-focused, integrated rail system that successfully moves people and products while enhancing economic growth and quality of life.



### Service Categories

- Rail Service - Operating Speed Over 125 Miles Per Hour
- Rail Service - Operating Speed Up To 125 Miles Per Hour
- Express Bus / Urban Rail Transit Network
- Amtrak Long Distance Trains
- Ferry Boat