



California State Rail Plan

& Service Development Plans

Planning Horizons

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Federal Requirements

- The Federal Passenger Rail Investment and Improvement Act of 2008 (PRIIA)
 - Requires State Rail Plans that include three elements
 - Conventional passenger rail
 - High speed passenger rail
 - Freight rail
 - U.S. Department of Transportation Secretary approves completed plans
 - State Rail Plans to be updated every five years

State Requirements

- California Government Code Section 14036 requires the Department to prepare:
 - A ten-year California State Rail Plan (CSRP)
 - Separate passenger & freight elements.
 - Updated every two years.
 - New state legislation changes this requirement

CSRP Funding

- Four FRA planning grants (\$4.5 M total) for CSRP & four corridor Service Development Plans (SDP)
 - Consultant contract
 - \$2.1 million Federal Grant Funds
 - \$0.9 million State Matching Funds
 - Contract period from June 2011 to June 2013
 - AECOM (Prime, SDPs)
 - Cambridge Systematic (CSRP)
 - Arellano Associates (Outreach)
 - Remaining grant funds for EIS & network integration studies

CSRP Status and Review Process

- Status
 - FRA accepted the 2013 CSRP & related SDPs in May
 - CalSTA approved the CSRP & SDPs in September 2013
 - Documents will now be released to the public
- Review Process
 - Final CSRP addresses comments on February 2013 Draft
 - Held five public meetings & one webinar
 - Received 216 comment documents (929 individual comments)

CSRP – Next Steps

- CSRP Legislation: AB 528 (Lowenthal) was just signed by the Governor. It conforms the content of the CSRP to Federal law (PRIIA).
 - Plan must be submitted to the Governor & Legislature by March 2017
 - Plan must be submitted to the CTC 6 months prior to submittal to CalSTA
 - CalSTA approves the plan
- 2017 CSRP – Next Steps:
 - Complete RFP & contract process
 - Complete draft plan
 - Conduct Public Review
 - CTC six month review
 - CalSTA's review & approval

CSRP Integration and Coordination

CSRP one of the State's modal plans –All incorporated in CTP



California State Rail Plan



Blended System



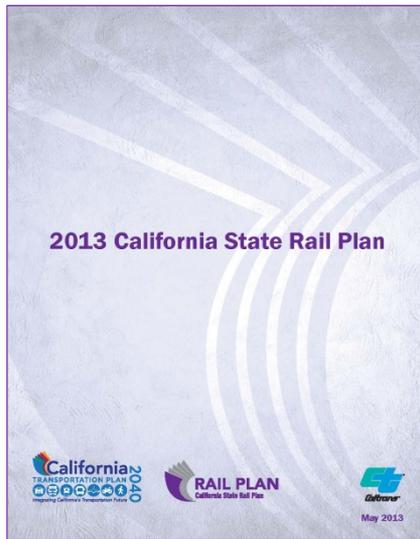
- Marketing
- Ticketing
- Capital priorities
- Revenue & cost sharing
- Operations & scheduling
- Fleet
- Stations
- Local & regional connections
- Institutional & governance
- Freight rail

CSRP Chapters

1. Introduction
- 2. California Rail Transportation Context and Challenges**
3. Rail Vision Statement
4. Public Outreach
- 5. Existing Passenger Rail System**
6. Existing Freight Rail System
- 7. Passenger and Freight Rail Integration**
- 8. Passenger Rail Improvements**
9. Freight Rail Improvements
- 10. Rail Benefits and Next Steps**

CSRP - Passenger Related Appendices

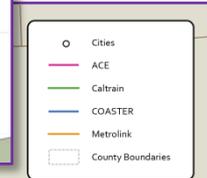
- A. County Population and Employment
- H. Planned or Programmed Grade Separation Projects
- I. Air Quality Benefits Methodology
- J. Economic Benefits Methodology



CSRP Value to Caltrans

- Freight & passenger interaction
 - Consistent economic & demographic forecasts
 - Rail network characteristics
 - Bottleneck & capacity analysis
- Specific capital projects
- Prior & ongoing studies
- Benefits & effects
 - Linked to specific service level assumptions
 - Statewide to community level
- Direct input & feedback
 - Rail operators & industry stakeholders
 - Public agencies

GIS Resources



CSRP Passenger Related References

- State
 - 2008 State Rail Plan
 - Caltrans rail corridor studies
 - High-Speed Rail Authority
 - Business Plan
 - Tier 1 & Tier 2 environmental analysis
 - California Interregional Blueprint
 - CTC Statewide Transportation Needs Assessment
- Regional & Local
 - Operators
 - Counties & cities
 - LOSSAN
- Federal
 - FRA Quarterly Reports
 - FRA Office of Safety Analysis
- Private
 - Industry interviews
 - Moody's Analytics

Rationale for Rail Passenger Investments

- Additional travel choices for California residents & visitors
 - Address door-to-door travel needs
 - Provide competitive & reliable travel times
 - Allow for productive time usage
- Provides added system capacity with minimal environmental & community effects



Chapter 2 – Context and Challenges

- Policy context
 - Passenger rail planning & delivery
 - Service integration needs
 - Statewide initiatives
 - Multimodal planning
 - Climate change
 - Corridor planning & project delivery
- Tribal government context
- Planning context
 - Economic & demographic trends
 - Environmental factors
- Rail system challenges
 - Shared passenger & freight rail corridors
 - Investment needs
 - Positive train control
 - State of good repair

Chapter 5 - Overview

- Passenger Rail Inventory
 - State-supported routes
 - Amtrak long-distance routes
 - Commuter rail routes
- Intermodal Passenger Connections
- Marketing Programs
- Passenger Rail Measures
- Institutional issues
 - Oversight
 - Assistance programs
- Safety & security



Chapter 5 System Characteristics

- Route Description
- Travel Times
- Amtrak Thruway Bus Routes
- Route Administration
- Route History
- Historical Performance
 - Ridership
 - Finances

SAN JOAQUIN ROUTE OWNERSHIP AND TRACK CHARACTERISTICS								
Between	Mile Post	And	Mile Post	Route Miles	Owner of Track	*No. of Tracks	Max Speed	Signal System
Oakland Jack London Square	7.0	Oakland 10th Street	4.2	2.8	UP	2	50	CTC
Oakland 10th Street	2.2	Martinez	31.7	29.5	UP	2	79	CTC
Martinez	34.7	Port Chicago	41.3	6.6	UP	1	79	CTC
Port Chicago	1163.5	Stockton	1120.7	42.8	BNSF	1-2	79	CTC
Sacramento	89.0	Elvas	91.8	2.8	UP	2	35	CTC
Elvas	38.8	Stockton	84.7	45.9	UP	1	60	CTC
Stockton	1120.7	Bakersfield	886.9	233.8	BNSF	1	79	CTC
			Total	364.2				

* General Number of Mainline Tracks

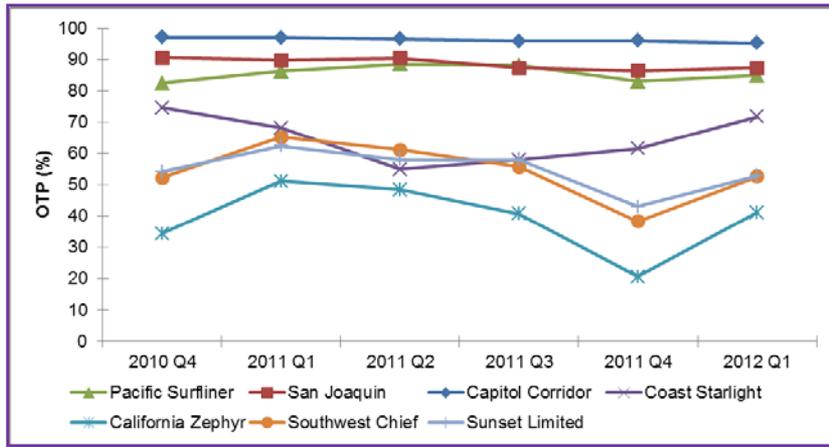
Owners:
 BNSF - BNSF Railway Company
 UP - Union Pacific Railroad Company

Signal Systems:
 CTC - Centralized Traffic Control - Wayside signals protect possession of block powered switches are also remotely controlled from the dispatching center movement of trains.



Chapter 5 - Performance Trends

- State-Supported Routes
 - State Code Section 14036
 - PRIIA Section 207
- Amtrak Long-Distance Routes
 - PRIIA Section 207



San Joaquin Route Statutory Performance Data

Performance Measure	Actual			
	FFY 04	...	FFY 10	FFY 11
Annual Revenue (in Millions of Dollars)	\$21.9		\$33.2	\$37.8
Total Annual Expenses (in Millions of Dollars)	\$49.3		\$67.8	\$69.8
Farebox Ratio	44.5%		48.9%	54.2%
Annual State Costs ^a (in Millions of Dollars)	\$27.4		\$33.6	\$32.0
State Costs—Administration (in Millions of Dollars)	\$1.3		\$1.3	\$1.3
State Costs – Marketing (in Millions of Dollars)	\$1.5		\$1.5	\$1.5
State Cost per Passenger	\$37.05		\$34.36	\$29.96
State Cost per Passenger Mile	\$0.24		\$0.24	\$0.20
State Cost per Train Mile	\$20.48		\$25.26	\$24.02
Annual Ridership	738,540		977,834	1,067,441
Annual Passenger Miles	113,754,130		139,405,193	156,427,566
Annual Train Miles	1,336,105		1,330,280	1,331,481
On-Time Performance	56.1%		90.7%	89.5%
Frequency (Daily)				
Oakland-Bakersfield	4		4	4
Sacramento-Bakersfield	2		2	2

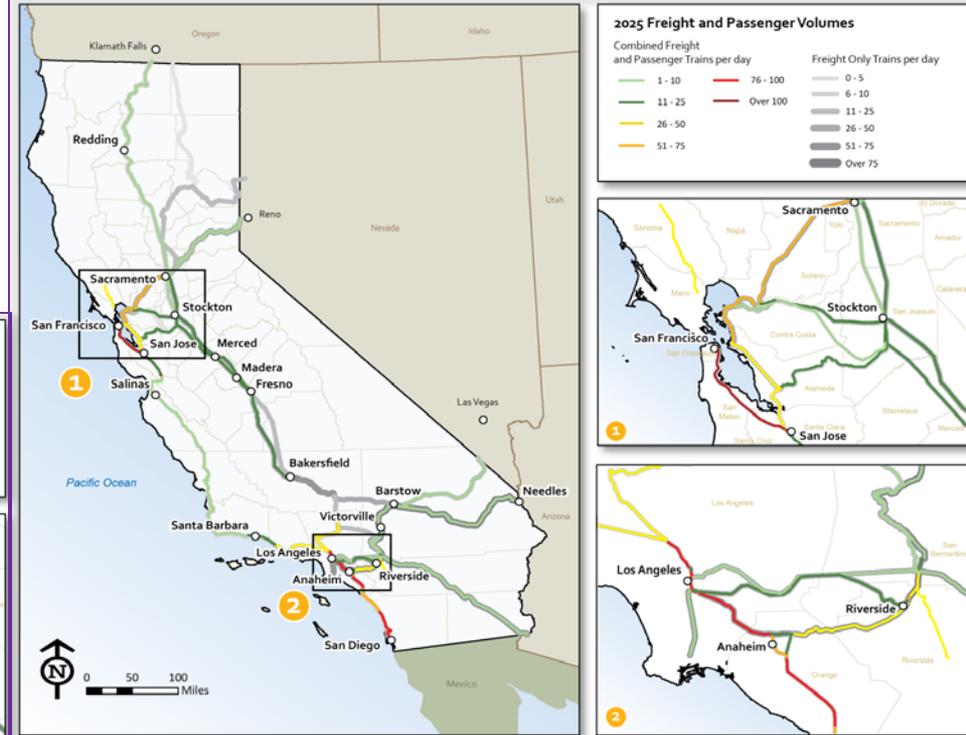
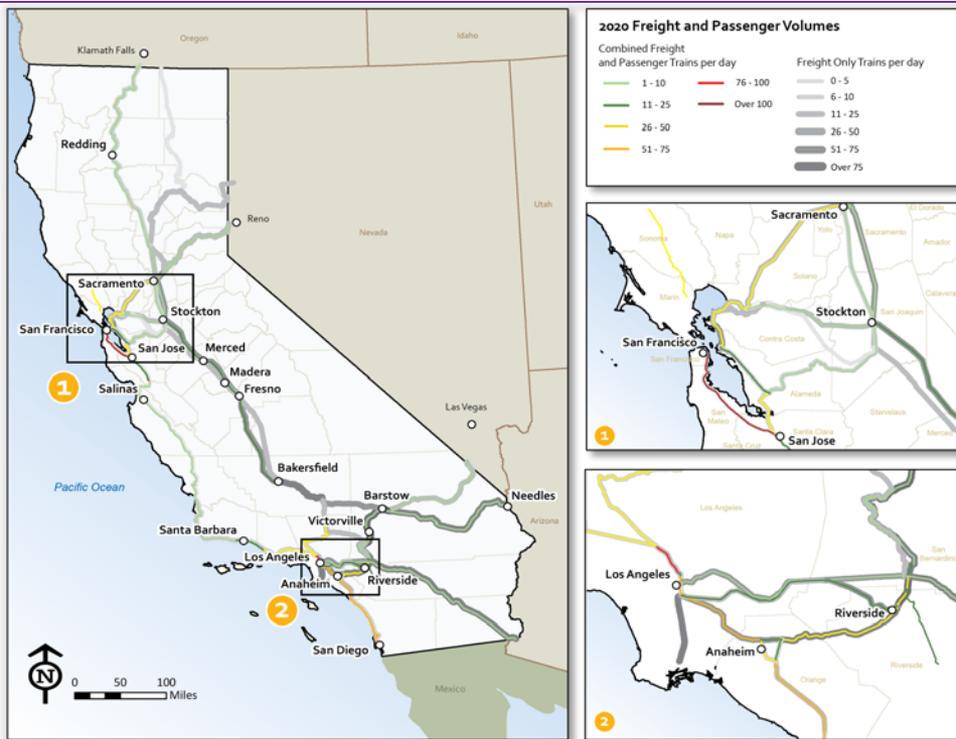
Chapter 7 - Overview

- Shared use corridors
 - Shared track
 - Shared right-of-way
 - Shared corridor
- Future demand
- Conflicts & opportunities
 - Evaluation
 - Freight rail influences
 - Passenger rail influences



Chapter 7 - Demand

- Total traffic
- Train mix
- Peaking



- Highest growth in Caltrain & ACE corridors
- Highest volumes in LOSSAN

Chapter 7 - Evaluation

- Criteria
 - 30 or more trains per day
 - 10 or more freight OR passenger trains
 - More than 30 percent commuter trains



Chapter 7 - Evaluation (continued)

- Key Corridors
 - Northern California
 - Stockton to Martinez
 - Sacramento to Stockton to Bakersfield
 - Oakland to Sacramento to Roseville
 - San Rafael to Santa Rosa
 - Southern California
 - Los Angeles to Downtown Burbank to Ventura
 - Los Angeles to Colton
 - Los Angeles to Riverside
 - Los Angeles to Fullerton & Laguna Niguel
 - Oceanside to San Diego

Chapter 8 - Overview

- HSR Blended System
- Conventional Intercity Passenger Rail
 - Improvements
 - Extensions
 - New
- Other Passenger Rail
 - Existing commuter rail
 - Proposed commuter rail
 - Southern California to Las Vegas
 - Other
- Connectivity Plans
 - Stations
 - Blended System hubs
 - Station area development



Chapter 8 – Capital Project Lists

- General
- Capital project grouping
 - Near-term (2013-15)
 - Mid-term (2016-2020)
 - Long-term (2021-2040)
- Project sources
 - Planning & programming documents
 - Local agency review & input
- Form basis for future federal funding requests

Chapter 8 – Capital Project Lists (continued)

- High-Speed Rail
 - Phased implementation with early investments
 - Northern & Southern California Unified Rail Service
- Existing State-Supported Intercity Routes
 - Multiple corridor investments
 - *Pacific Surfliner, San Joaquin & Capitol Corridor* routes
- Existing and Proposed Commuter Rail Services
- Proposed Intercity Services
 - *Coast Daylight* (San Francisco – Los Angeles)
 - *Coachella Valley Route* (Los Angeles – Indio)

Station Typology

Feature			Station Category					
			Major Metropolitan Downtown	Developed Urban Area	Minor Downtown or Activity Center	Outlying or Suburban Area		
						Moderate Transit Connectivity	Limited Transit Connectivity	
Connectivity	Rail/ Transit	Intercity	●	○	○	○		
		Local/ Regional	Urban rail	●	○			
			Commuter rail	●	○	○	○	
			Bus or other	●	●	○	○	○
	Auto	Parking facility	●	●	●	●	○	
		Pick-up/drop-off zone	●	●	●	●	○	
		Taxi zone	●	●	●	○	○	
		Rental car facility/Car sharing	○	○	○			
	Bicycle	Nearby bicycle routes	●	●	●	○	○	
		Bike storage	●	●	●			
		Bike sharing programs	●	○	○			
	Station configurations supporting connectivity (e.g., full grade separation, cross-platform transfers)		●	○				
	Pedestrian		●	●	○	○	○	
Pedestrian-oriented land use/urban design		●	●	○				
Amenities	Enclosed waiting area		●	●	●	●	○	
	Station staffing		●	●	○	○		
	Ticket machines/office		●	●	○	○		
	Baggage check		●	●	○	○		
	Restrooms		●	●	●	●	○	
	Payphone		●	●	○	○	○	
	ATM		●	●	○	○		
	Vendors		●	●	○	○		

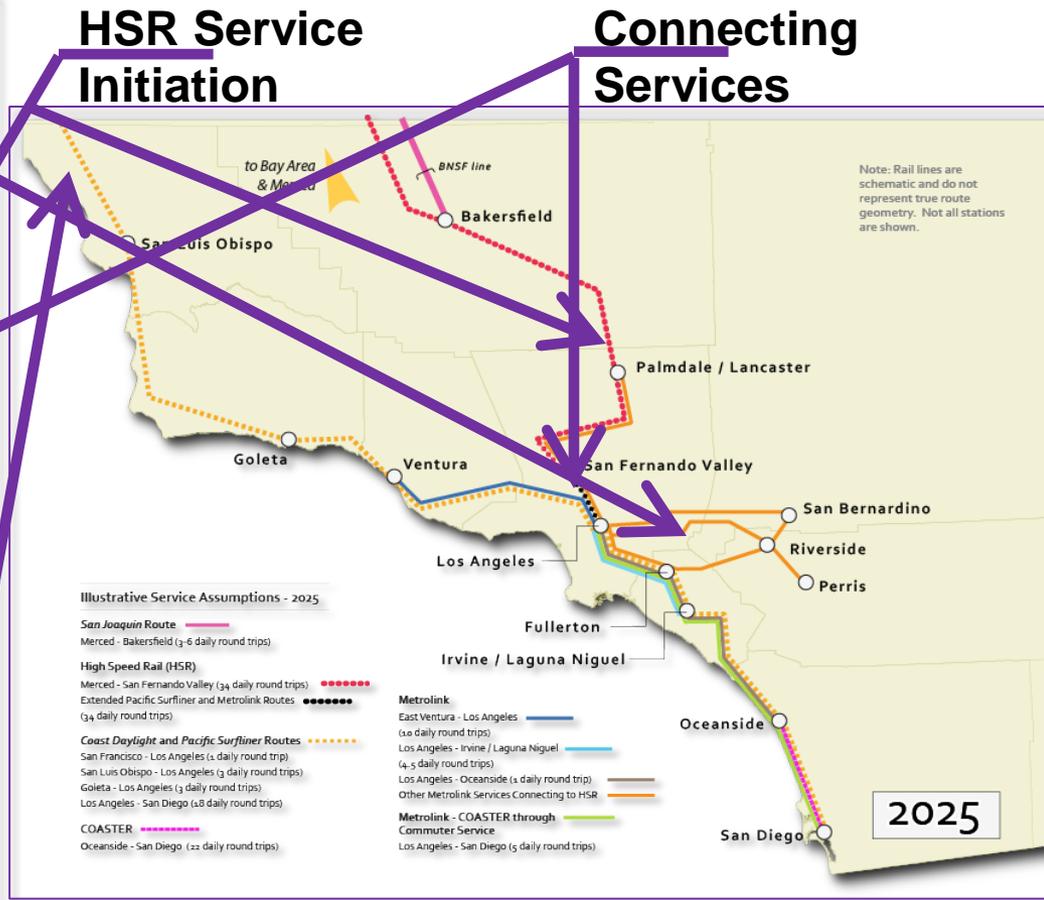
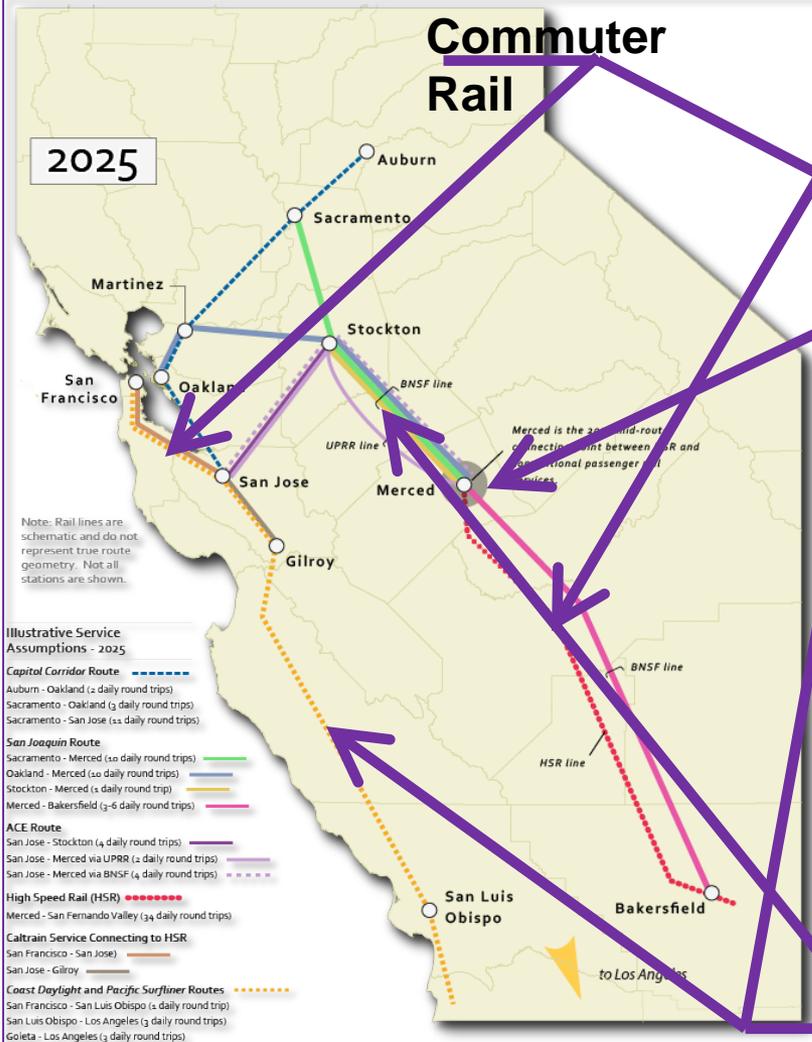
- Good quality and/or common among stations of indicated typology.
- Low or moderate quality and/or only found in some stations of indicated typology.

Chapter 10 - Overview

- Public & Private Effects
- Rail Funding & Financing
- Rail Corridor Preservation
- Next Steps & Conclusions
 - Institutional changes
 - Planning activities
 - Blended System
 - Service Development Plans
 - Operations modeling
 - Environmental clearance
 - Project execution



Chapter 10 – Illustrative Service Plans

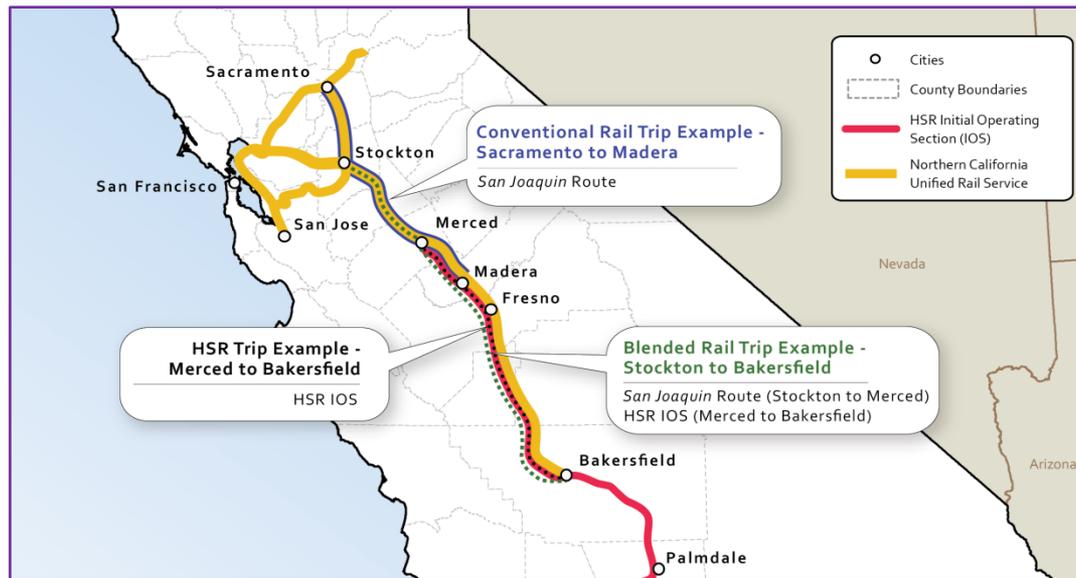


San Joaquin Route & Terminal Options
Coast Daylight Service Initiation



Chapter 10 – Ridership Forecasts

Passenger Rail Route	Baseline Service 2013	Improved Service		
		2020	2025	2040
ACE ^a	0.91	1.41	1.85	1.90
Capitol Corridor ^b	1.79	2.40	2.73	3.46
San Joaquin Valley – Conventional Rail ^c	1.17	2.64	2.51	2.34
High-Speed Rail ^d	n/a	n/a	8.81	26.38
Pacific Surfliner ^e	2.70	3.26	3.91	5.04
Metrolink & COASTER ^f	4.95	6.27	9.38	12.09
Coast Daylight	–	0.12	0.14	0.27
TOTAL	11.52	16.10	29.33	51.48



Chapter 10 – Public and Private Effects

- Transportation System Effects
 - Mode shifts
 - VMT & VHT changes
- Economic Effects
- Environmental Effects
 - Air quality emissions
 - Climate change
 - Community, land use & greening

Region	Annual Benefits (in millions in 2012 dollars)		
	2020	2025	2040
<i>Pacific Surfliner</i> , South of Los Angeles	\$26	\$162	\$429
<i>Pacific Surfliner</i> , North of Los Angeles	\$14	\$81	\$215
<i>Coast Daylight</i>	\$14	\$81	\$215
HSR & Northern/Southern California Connecting Services	\$96	\$2,380	\$6,298
Statewide Total	\$150	\$2,704	\$7,157

Service Development Plans

Service Development Plans (SDP)

- SDPs formalize the State's plans for intercity rail corridors
 - Caltrans has completed SDPs & planning studies:
 - *Pacific Surfliner* (North & South) route
 - *Coast Daylight* route
 - *San Joaquin* route
 - Planning study for the Proposed Coachella Valley Intercity Rail Route
- Federal Environmental Documents Support SDPs
 - LOSSAN South – completed 2007
 - *Coast Daylight* – Fall 2014
 - LOSSAN North – Summer 2015
 - State certified document in progress for the *San Joaquin* route

SDPs – Overall Objectives

- Improve Safety
- Increase Passenger Rail Cost-Effectiveness
- Increase Capacity of Existing Services
- Attract More Passengers
 - Reduce running times
 - Improve schedule adherence & reliability
 - Expand service frequency & coverage



SDP Overview

- Identify Purpose & Need
- Analyze & Evaluate Alternatives
- Describe Implementation
- Other Studies & Expanded SDPs for HSR System Integration



SDP Chapters Overview

1. Introduction
2. Purpose and Need
3. Rationale
4. Identification of Alternatives
5. Evaluation of Alternatives
6. Planning Methodologies
7. Outreach Efforts
8. Ridership Demand and Revenue Forecasts
9. Operations Analysis
10. Station and Access Analysis
11. Conceptual Engineering and Capital Programming
12. Operating & Maintenance Costs and Capital Replacement Forecast
13. Public Benefits and Impact Analysis
14. Summary Service Development Plan

SDP Identified Improvements

- Developed from Existing Corridor Rail Service Plans
- Corridor Rail Service Improvements – Current, Planned & Proposed Infrastructure Projects.
 - *Near-Term* (2013-2015) – allocated and/or programmed funding & in design/under construction
 - *Mid-Term* (2016-2020) – reasonable likelihood of funding
 - *Long-Term* (2021-2040) – implemented subject to future funding



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