The Northern California Megaregion
Megaregion Project Partners

- Alameda County Transportation Commission
- Altamont Corridor Express
- The Cambay Group Inc.
- Greater Sacramento California
- Innovation Tri-Valley Leadership Group
- Capitol Corridor
- Metropolitan Transportation Commission
- San Joaquin Partnership
- UCDavis
- SACOG
- University of the Pacific
- San Joaquin Joint Powers Authority

www.bayareaeconomy.org | @bayareaeconomy | #megaregion
Relative Population Growth Since 2000 Concentrated outside of Bay Area

Twelve of the 16 fastest growing cities in the megaregion are located in the Sacramento area and the Northern San Joaquin Valley:

- Elk Grove
- Yuba City
- Rocklin
- Manteca
- Roseville
- Tracy
But Bay Area Leads Job Gains

- 75% of job growth since ‘10 in Bay Area
  + Bay Area home prices 3x NSJV
  + Truck trips converge in Oakland and NSJV
  = Largest % of mega-commutes

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More Commuters Making Megaregional Trips

Data Source: Census Transportation Planning Products, 2009-2013

Analysis: University of the Pacific
Disparity in Home Prices Drives Migration

Change in Metro Area Median Home Values Since 2006

Data Source: Zillow.com
Analysis: Bay Area Council Economic Institute
Rail Lines Have Limited Options to Serve More Riders

- Altamont Corridor Express (ACE)
- Amtrak Capitol Corridor
- Amtrak San Joaquins

Megaregional Passenger Rail Ridership 2007-2014

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Expanding Economic Prosperity in the Megaregion

1. Make substantial investments in career technical education

2. Re-envision economic development

3. Institute geographically-targeted tax credits

4. Create structures for collaboration amongst universities and industry
Educational Attainment Remains a Barrier

Note: Included population includes those 25 years old and older
Data Source: U.S. Census Bureau, 2014 five-year American Community Survey, and 2000 Decennial Census
Analysis: Bay Area Council Economic Institute
Investing in Megaregional Transportation Infrastructure

1. Improve and expand service on megaregional rail lines

2. Prioritize connectivity in State Rail Plan

3. Coordinate advocacy for dedicated sources of infrastructure finance

4. Support investments that limit the environmental impacts of goods movement
What is the California State Rail Plan?

– Statewide Rail Network “Vision”
  • Passenger & Freight Rail Investments

– Rail Investment Program
  • Short-term (2022), Mid-Term (2027) & Vision (2040)

– Program Effects Analysis

– Passenger Rail System Integration
Freight Elements of the State Rail Plan

- **Description and Inventory**
- **Trends and Forecasts**
- **Service Needs and Opportunities**

- **Proposed Rail Improvements**
- **How Investments Will Improve Performance**
- **Leveraging Across Modes and Passenger Coordination**

- **Projects/Programs**
- **Funding and Financing**
- **Program Effects**
Trends: California’s Top Ten Trading Partners by Rail

Inbound and Outbound Tons by Trade Partner

- Illinois: Inbound 26.7%, Outbound 34.7%
- Texas: Inbound 13.3%, Outbound 22.3%
- Nebraska: Inbound 0.1%, Outbound 7.5%
- Kansas: Inbound 4.0%, Outbound 4.3%
- Tennessee: Inbound 5.5%, Outbound 3.2%
- Utah: Inbound 1.8%, Outbound 4.6%
- Louisiana: Inbound 3.3%, Outbound 3.1%
- Oregon: Inbound 2.2%, Outbound 3.1%
- Canada: Inbound 0.8%, Outbound 3.8%
- Iowa: Inbound 0.5%, Outbound 3.7%
Trends: California’s Top Ten Trading Partners by Rail
Trends: Declining Coal Demand

– Highest volume commodity shipped by rail
– Uneven Geographic impact
– Outlook:
  • Near-term - modestly positive
  • Long-term - continued declines
Trends: Energy Sector Demand

– Crude oil market sensitive to global prices,
  • Plummeted since Q4 2014

– Rail capacity has driven down rates for other commodities

– Prognostications about energy prices are usually wrong!
Trends: Challenges to California Competitiveness

• **Panama Canal expansion**
  – Makes East Coast Ports stronger competitors
    • 2002 - Southern California ports: 39% of US container imports;
    • 2013 - Decrease to 32% of US container imports

• **Manufacturing Shifts**
  – Higher Chinese wage rates
    • Some shift to Near East Asia
  – Strong reshoring and near-shoring trends

Trends: Intermodal and International Growth

» Intermodal traffic to double by 2040

» Address Principle Trade Corridor Capacity:
  » Efficient use of capacity
  » Dedicated Freight Capacity
  » Separate Passenger & Freight

Projected Intermodal Growth
Trends: Implications for California

» Reduced pressure on **capacity** in near-term:
  » **Opportunity** to explore new markets/revenue sources for rail

» Projected **intermodal growth** and need to target/preserve capacity
  » **Partnerships** are important to preserve market share for California ports
Trade Corridor Improvements

Map Key
(Rail Subdivision)

5. UPRR Martinez (Oakland to Martinez)
6. Southern Oakland Route (Oakland to Niles Junction)
7. BNSF Mainline Stockton to Bakersfield (San Joaquin Corridor)
8. UP Roseville to Reno over Donner Pass
Trade Corridor Improvements

Map Key (Rail Subdivision)

1. **BNSF San Bernardino** (LA-San Bernardino via Fullerton & Riverside)
2. **BNSF Cajon** (Barstow to Keenbrook)
3. **UPRR Sunset Route** (Yuma Subdivision)
4. **UPRR Alhambra** and Los Angeles
## Intermodal Terminal Capacity

<table>
<thead>
<tr>
<th>Region</th>
<th>Current Terminal Capacity (Lifts)</th>
<th>Projected Future Capacity Needs (Lifts)</th>
<th>Projected Increase in Capacity Needs (Lifts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bay Area</td>
<td>750,000</td>
<td>1,150,000</td>
<td>400,000</td>
</tr>
<tr>
<td>Central Valley</td>
<td>570,000</td>
<td>1,030,000</td>
<td>460,000</td>
</tr>
<tr>
<td>So. California</td>
<td>6,599,775</td>
<td>12,258,403</td>
<td>5,658,628</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>7,919,775</td>
<td>14,438,403</td>
<td>6,518,628</td>
</tr>
</tbody>
</table>
Short Haul Shuttles

– **Short Haul Competitiveness**
  • Rising truck drayage costs

– **Port of Long Beach**
  • Alleviate port and highway congestion
  • Improve the velocity of cargo
  • Advance inland logistics center dev.

– **Port of Oakland**
  • San Joaquin Valley Connections
Grade Crossing Improvements

– Grade Crossings & Separations
  • Expand existing Caltrans programs

– Address Community Impacts
  • Rail Traffic Growth
  • Shift to Dedicated Lines
  • Short Line Upgrades
  • Rural Grade Crossings
Funding Opportunities: Sources and Programs

» Local Transportation Fund
» Local Sales Tax
» Potential RM 3
» State Transit Assistance
» Intercity Rail Program Funding
» State Transportation Improvement Program
» California Greenhouse Gas Reduction Fund
  » Transit and Intercity Rail Capital Program
» HSR Funding
» Additional funding and program enhancements guided by SB 1
  » State Transit Assistance
  » State Rail Assistance
  » Transit and Intercity Rail Capital Program
  » Congested Corridor Program
  » Trade Corridor Enhancement Account
» Federal Discretionary Programs
  » TIGER
  » FASTLANE/INFRA
  » FTA’s Capital Investment Grants
  » FRA’s FAST Act Grants
» Federal Formula Programs
## 2018 California State Rail Plan Schedule

<table>
<thead>
<tr>
<th>Event</th>
<th>Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Release of Public Review Draft</td>
<td>October 11, 2017</td>
</tr>
<tr>
<td>Public Comment Period</td>
<td>60 days: October 11 – December 11, 2017</td>
</tr>
<tr>
<td>Revision of Draft</td>
<td>Winter 2017/2018</td>
</tr>
<tr>
<td>Document review; approval process (CTC, CalSTA, FRA); and submittal to Legislature</td>
<td>Spring 2018</td>
</tr>
</tbody>
</table>

## How to Submit a Comment

Your input is important to us. Please submit your comments:

**Online Form:** [californiastaterailplan.com/comments.html](californiastaterailplan.com/comments.html)

**Mail:**
CA Department of Transportation - Division of Rail and Mass Transportation, Rail Planning Branch
1120 N Street, MS 74
Sacramento, CA 95814
Questions?
Significant Planning Completed
Alameda County Rail Strategy: Pressure Points

- New Rail Services and growth at the Port of Oakland
- Population growth increasing demand for freight rail
- Proposed Expansion of Passenger Rail Service
- Ongoing community impacts from rail activity
California Freight Rail Growth Markets

California freight rail volumes are projected to more than double between 2013 and 2040.

121% Growth to the Midwest and Northeast to 112 million tons in 2040

140% Growth to Southwest and Southeast to 76 million tons in 2040

Port of Oakland Top Commodities (2014)

<table>
<thead>
<tr>
<th>Top 5 Exports</th>
<th>Top 5 Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wood pulp</td>
<td>Furniture</td>
</tr>
<tr>
<td>Fruits and nuts</td>
<td>Packaging</td>
</tr>
<tr>
<td>Meats and fish</td>
<td>Glass products</td>
</tr>
<tr>
<td>Beverages, spirits, and vinegar</td>
<td>Non-Electrical Machinery</td>
</tr>
<tr>
<td>Grains and seeds</td>
<td>Electrical Machinery</td>
</tr>
</tbody>
</table>
Bay Area Freight Rail Network

- Circuitous routes for freight due to lack of connections
- Redundant parallel track has value and provides opportunity
- Much shared track could be reduced with targeted improvements
National Freight Rail Network

- Rail in Alameda County is a small part of national freight rail networks
- Railroads make routing decisions based on business, operational and customer needs along with existing operating agreements
## Overview of Growth Scenarios

<table>
<thead>
<tr>
<th>Scenario ID#</th>
<th>2035 Growth Scenarios and Key Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Freight Trains</strong></td>
</tr>
<tr>
<td><strong>Moderate</strong></td>
<td>Walk the same proud path as before</td>
</tr>
<tr>
<td><strong>High</strong></td>
<td>40% share of the Port's growth</td>
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</tr>
</tbody>
</table>

- **Moderate**
  - Historical 2% growth
  - Maintain 23% rail share at Port

- **High**
  - Higher Port growth consistent with Oakland Army Base EIR
  - Add 8 daily Oakland - San Jose roundtrips for a total of 15 (30 daily trains)
  - Add 6 round trips for a total of 10 (20 daily trains).
**Preliminary Scenario Results, No Improvements**

- **Scenario 2 (2035)**
  - High freight growth
  - Moderate passenger growth
Key Issues – Capacity and Flow Constraints, Lack of Connectivity
Alameda County Rail System

Countywide Grade Crossing Improvement Program

- Martinez Subdivision Grade crossing improvements and track improvements in Martinez
- Jack London Square Safety and operational improvements
- GO Port Projects
  - 7th Street Improvements
  - Port Roadway
  - BNSF
- East Bay Greenway Project Oakland to Hayward
- Industrial Parkway Connection between the Niles and Oakland subdivisions

[Map showing rail system and locations]
Regional Collaboration

- MTC 10-year Investment Strategy
  - Emissions Reduction
  - Freight Roadway
  - Rail Strategy
- Estimates potential revenues and identifies priority investments over a 10-year horizon
- Seeks to leverage significant local and regional funding to deliver improvements
Partnership Approach

- Partnership Agreement to establish framework for collaboration
- Identify specific agreements needed to advance projects
- Seek funding to deliver
- Provide local matching funds for emission reduction projects
Thank you!