Welcome to the California High-Speed Rail Authority's Public Information Meeting

Merced to Fresno High-Speed Train Project
Purpose and Need

Purpose of the High-Speed Train Project

• Provide a new mode of high-speed intercity travel that would link the Central Valley to the Bay Area and Southern California
• Interface with international airports, mass transit, and highways
• Provide added capacity to meet increases in intercity travel demand in California in a manner sensitive to and protective of California’s unique natural resources

Current and Projected Need

• Expected growth in population
• Increases in intercity travel demand
• Increases in travel delays arising from the growing congestion on California’s highways and airports
• Intercity highway system, commercial airports, and conventional passenger rail serving the intercity market at or near capacity
• Negative effects from highway and airport congestion on the economy, quality of life, and air quality in the San Joaquin Valley
What are High-Speed Trains?

• **Intercity passenger trains** operating at speeds up to 220 miles per hour
• **Tracks separated** from roads and highways
• **Proven Technology**
  – Safe and Reliable
  – Successfully operating throughout Europe and Asia

*Other High-Speed Trains Around the World*

- Shinkansen, Japan
- TGV, France
- Intercity Express, Germany
A1 (BNSF) - Ave 21 Wye Through Le Grand
A1 (BNSF) - Ave 21 Wye Le Grand Bypass
A1 (BNSF) - Ave 24 Wye Through Le Grand
A1 (BNSF) - Ave 24 Wye Le Grand Bypass
A2 (UPRR) - Ave 21 Wye
A2 (UPRR) – Ave 24 Wye West Chowchilla Design Option
A2 (UPRR) / A1 (BNSF) – Ave 24 Wye West Chowchilla Design Option
Environmental Review Process

The Environmental Review Process and planning activities associated with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) will:

- **Identify** all environmental impacts
- **Evaluate** reasonable alternatives that could avoid or minimize environmental impacts
- **Develop** detailed mitigation (ways to reduce or avoid environmental impacts)
- **Provide** information for public review and comment
- **Disclose** to decision makers the impacts, mitigation, and public comments
Flexibility of Design
Flexibility of Design
Mitigation Measures Under Elevated Guideway

- FRA has approved joint use under HST Guideway
- Linear parks, paths and roadways may be considered
Grade Separations

- Grade separations are underpasses and overpasses where roadways cross railroad tracks.
- Grade separations reduce congestion and noise and improve safety.
- California High-Speed Train tracks will be grade-separated from adjacent roadways.

Typical Underpass

Before

Typical Overpass

Grade Separated from Roadway
Community Impact Assessment Process
Environmental laws require consideration of the social and economic impacts of projects during the preparation of environmental documents. To satisfy these requirements, a “community impact assessment” is conducted to determine how a proposed project will affect people, institutions, neighborhoods, communities, and organizations as well as social and economic systems. A wide variety of social and economic considerations fall under the umbrella of the community impact assessment, and may include:

- Relocations
- Community stability and cohesion
- Land use and growth
- Environmental justice
- Employment and tax base changes
- Public service impacts

The results of the community impact assessment will be documented in a technical report and reported in the project environmental document.

After an Alignment is Selected Right of Way Staff Will Conduct the following:

- Permits to Enter
- Appraisal
- Acquisitions
- Relocation Assistance
- Property Management
- Utility Relocation
- Excess Land Sales
- Clearance and Demolition
Right of Way (ROW) & Real Estate Evaluation Process

**Evaluation Steps for Draft EIR/EIS**
- Map the Project alternatives and components
- Determine temporary and permanent acquisition area
- Assess public and private property encroachments
- Identify affected land uses, buildings, and community resources
- Determine the level of impact
- Identify potential displacements
- Assess availability of supply of relocation sites
- Incorporate redevelopment planning and TOD

**Steps After Final EIR/EIS and Project Approval**
- Outreach to Property Owners, Community and Stakeholders
- Relocation Planning and Assistance
California High-Speed Train – Creates Jobs

• ~880 people: 1/5th of the project’s work force
  – Drivers
  – Conductors
  – On-board service

• ~1,100 people: 1/4th of the project work force
  – Ticketing
  – Security
  – Passenger service
  – HQ management and administration

  Positions include a broad range of personnel from security staff to ticket machine maintenance, to customer service, accounting, finance, scheduling, administration

• ~100 people
  – Operations control
  – Power management

• ~440 people: 1/10th of the project’s work force
  – Track
  – Ballast
  – Power systems
  – Signaling/telecommunications
  – Structures maintenance

• ~1,500+ people: 1/3rd of the project’s work force
  – Train maintenance and overhauls
  – Basic body and paint shop work
  – Upholstery and fabric people
California High-Speed Train - Creates Jobs

- Equivalent of nearly 600,000 full-time, one-year jobs over the course of construction
- About 4,400 full-time jobs from San Francisco to Anaheim

Operations Jobs
- Service planning & fare setting
- Operations planning, scheduling, fares
- Train driving & dispatching
- On-board passenger services
- Ticketing & revenue accounting
- Station services & security

Maintenance Jobs
- Train servicing & inspection
- Train maintenance
- Fixed core system & infrastructure inspection & maintenance
BNSF (A1) Alternative Optimized Profile

Legend:
- Previous At-Grade
- Previous Elevated
- Revised Elevated to At-Grade
- Other HST Project Section
- County Boundary
- Potential Station
- City Limits

Key Locations:
- Downtown Merced & Station
- Wye Connection
- North Fresno & Station
UPRR/SR99 (A2) Alternative Optimized Profile

Legend
- Previous At-Grade
- Previous Elevated
- Revised Elevated to At-Grade
- Other HST Project Section
- County Boundary
- City Limits

- Downtown Merced & Station
- Wye Connection
- North Fresno & Station
Hybrid Alternative Optimized Profile
Phase 1 Moving Forward

Building outward north and south

First step:
- Merced—Fresno
- Fresno—Bakersfield

Second Step:
- San Jose—Merced
- Bakersfield—Palmdale
- Palmdale—Los Angeles

Third Step:
- San Francisco—San Jose
- Los Angeles—Anaheim
## Current Public Funding Summary

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<th>Award</th>
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Approximately $6.33 billion is available for initial construction
Downtown Merced Station

- Now located between Martin Luther King Jr. Way and G Street
- The station would be accessible from both sides of the UPRR
- Primary station entrance would be on 16th Street

- Best access to the regional highway and public transit system
- Fewest residential impacts
- Adjacent to the UPRR right-of-way in Downtown Merced
- At-grade profile reduces visual impacts
Farmland Resources

High-speed train project could potentially affect farmlands by:

- Acquiring farmland for right-of-way (consider Williamson Act contracts)
- Severing parcels and access

Mitigation measures to be considered:

- Avoiding farmlands (such as by aligning HST features adjacent to existing rail rights-of-way)
- Reduce width of right-of-way
- Preserve access through HST for farm equipment
- Protecting other farmlands

Agricultural benefits of HST:

- Reducing pressure for farmland conversion to urban uses by fostering higher-density development around HST stations

1) Farmland as defined by the California Department of Conservation, Farmland Mapping and Monitoring Program (FMMP). FMMP data is for general planning purposes, and has a minimum mapping unit of 10 acres. “Other Important Farmland” includes the following FMMP categories: Farmland of Statewide Importance, Farmland of Local Importance, and Unique Farmland. “Other Lands” category includes the following FMMP categories: Grazing Lands and Other Land. Based on 2008 FMMP GIS data for Merced, Madera, and Fresno Counties.
Community Impacts

High-speed train project effects on community could include:

- Potential noise impacts from the aerodynamic movement of air from high train speeds
- Potential visual effects of elevated structures
- Construction disturbances

Methods of minimizing effects on community

- Avoid residential corridors when possible
- Plan for future road crossing needs
- Crossings at designated locations prevent bifurcating neighborhoods
- Minimize elevated structures where practical, or integrate structures within urban centers

High-speed train project benefits to community

- Economic connectivity/attraction
- Enhance intercity accessibility
- Reduce dependence on non-sustainable fuels
- Improve air quality
- Stimulate economy by creating thousands of new jobs
- Create new meeting places in the station areas

Community Impacts are the effects of a transportation action on a community and its quality of life. Community impacts include all items of importance to people, such as aesthetics, noise and vibration, mobility and access, safety, employment effects, relocation, isolation and other community issues specific to each project.
Next Steps – NEPA/CEQA Analysis

• Meet with members of the public/stakeholders
• Complete Environmental technical studies:
  • **Natural Environment**: Wetland, Fisheries/Aquatic, Wildlife, Water Resources, Geology, Agriculture
  • **Social Environment**: Transportation, Air Quality, Neighborhood/Community impacts, Economics, Cultural Resources, Land use, Parks
  • **Built Environment**: Property Acquisition, Electromagnetic Fields, Noise/Vibration, Public Utilities/Energy, Safety & Security, Visual
• Circulate Draft EIR/EIS – July 2011
• Release Final EIR/EIS – January 2012
• Record of Decision/Notice of Determination – February 2012

*dates subject to change*
Thank you for attending today’s public information meeting. Please fill out a comment sheet, hand it to a staff person or leave it in the comment boxes provided at each station.

If you want to comment outside the meeting, here is how to provide input:

**Written Comments:**
California High-Speed Rail Authority  
Mr. Jeff Abercrombie, Regional Director  
Attn: Merced to Fresno  
HST Project EIR/EIS  
770 L Street, Suite 800  
Sacramento, CA 95814

**Emailed Comments:**
California High-Speed Rail Authority  
Merced_Fresno@ca.hsr.gov

Include in the subject line:
Merced to Fresno HST

For more project information visit the authority’s website:

www.cahighspeedrail.ca.gov
**Reducing Visual Impacts**

**Visual quality** is an assessment of the composition of the character-defining features of the landscape. Visual quality is determined by evaluating the viewed landscape’s characteristics in terms of vividness, intactness, and unity.

According to CEQA Guidelines, the project would result in a significant impact on aesthetics and visual quality in the following instances:

- The project would have a substantial adverse impact on a scenic vista.
- The project would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historical buildings within a state scenic highway.
- The project would substantially degrade the site’s and its surroundings’ existing visual character or quality.
- The project would create a new source of substantial light or glare, which would adversely affect day or nighttime area views.

**Where feasible, designing the tracks at-grade reduces noise and visual impacts.**

The visual simulations on the left represent differences in appearance between aerial structures and at-grade alignments.
High-Speed Trains Sound

High Speed trains make four kinds of sound:

- **Rolling** – sound from the wheels as trains move along the tracks.
- **Propulsion** – sound from motors and gears that make the train move.
- **Equipment** – sound from cooling fans and air conditioners.
- **Aerodynamics** – sound from the flow of air moving past the train at high speed.

Comparing the sound of High-Speed Trains:

- **Aerodynamics due to Train and Pantograph (at high speed)**
- **Propulsion noise (at acceleration)**
- **Equipment noise (Cooling Fans & HVAC)**
- **Rolling sound (at lower speeds)**
  - steel wheel on steel rail

[Graph showing the comparison of sound levels for different modes of transportation.]
Assessing Sound Impacts

**Measuring Sound:** Sound is measured in terms of sound pressure level expressed in decibels (dB). In order to account for human response to high and low frequencies, the A-weighting system is used. These measurements are referred to as dBA.

**Federal Railroad Administration Noise Criteria**

The figure below is an example of how sound impacts will be shown in the Draft EIR/S.

Sound measurements are used to assess the level of impact. Impacts are categorized as:

1. **No Impact**
2. **Moderate impact** – the change in cumulative noise level would be noticeable to most people, but may not be sufficient to generate strong, adverse reactions.
3. **Severe impact** – a significant percentage of people would be highly annoyed by the project’s noise.
Potential Sound Mitigation Options

- Install sound barriers
  - Work with communities to determine how the use and height of sound barriers would be determined
- Install building sound insulation
- Purchase properties severely affected by noise

Before Sound Mitigation

After Sound Mitigation

Conceptual sound barrier options

Photos provided by HMMH
Proposed Schedule

Proposed Project Schedule*

- Scoping Process & Scoping Report
- Preliminary Alternatives Analysis (AA)
- Supplemental AA

Draft EIR/EIS
- Draft EIR/EIS Public Hearings
- Final EIR/EIS
- Notice of Determination/Record of Decision
- ROW Acquisition
- Final Design/Construction

2009  2010  2011  2012  2013

*Schedule subject to change
All 3 Alternatives Optimized Profile

Profile Legend

<table>
<thead>
<tr>
<th>Previous Elevated:</th>
<th>Previous At-Grade</th>
<th>Revised to At-Grade:</th>
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Alignment

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<tr>
<td>Hybrid</td>
<td>13 miles</td>
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Optimized Profile Road Closures and Modifications

- Provide at-grade UPRR road crossings
- Provide new grade-separated road crossings
- Advance Veterans Blvd grade separation project
- Close existing at-grade UPRR road crossings
- Provide new grade-separated road crossing
- Provide new pedestrian bridge

The road closures and modifications identified here are in addition to the road closures and modifications that were identified before the alignment was optimized for an at-grade profile.
A2 (UPRR) / A1 (BNSF) – Ave 21 Wye

Legend
- UPRR/SR 99
- UPRR/SR 99 (A2)/BNSF (A1)
  Ave 21 Wye Hybrid
- Other HST Project Section
- Potential Station
- County Boundary
- City Limits

Map showing the railway lines and stations in the area of Merced, Chowchilla, and Madera, including the Ave 21 Wye Hybrid area.

CALIFORNIA High-Speed Rail Authority
U.S. Department of Transportation
Federal Railroad Administration