FACT SHEET FOR THE FRESNO COUNTY SUBSECTION OF THE CALIFORNIA HIGH-SPEED TRAIN (HST)

1. INTRODUCTION

The Fresno County subsection of the California High-Speed Train System (HST) is analyzed in two separate EIR/EISs – the Merced-Fresno EIR/EIS and the Fresno-Bakersfield EIR/EIR. Both documents are prepared by the California High Speed Rail Authority (Authority) and the Federal Railroad Administration (FRA). The EIR/EISs are currently undergoing public review. The purpose of this fact sheet is to summarize potential impacts within the Fresno County subsection of the route.

2. THE CALIFORNIA HIGH-SPEED TRAIN SYSTEM (HST)

- First-tier EIR/EIS documents evaluated the overall HST System and lead to decisions about general alignments and station locations for further study in second-tier EIR/EISs (*2005 Final Program EIR/EIS for the Proposed California High-Speed Train System* and the *2008 Bay Area to Central Valley HST Final Program EIR/EIS*)

- The Merced-Fresno and Fresno-Bakersfield EIR/EISs build on the earlier program EIR/EISs and provides more site-specific and detailed analysis.

- The HST System will have more than 800 miles of track connecting Sacramento, San Francisco, the Central Valley, Los Angeles, and San Diego. It will use electrically powered steel-wheel-on-steel-rail technology, including automated train-control, operating up to 220 miles per hour over a fully grade-separated, dedicated track alignment.

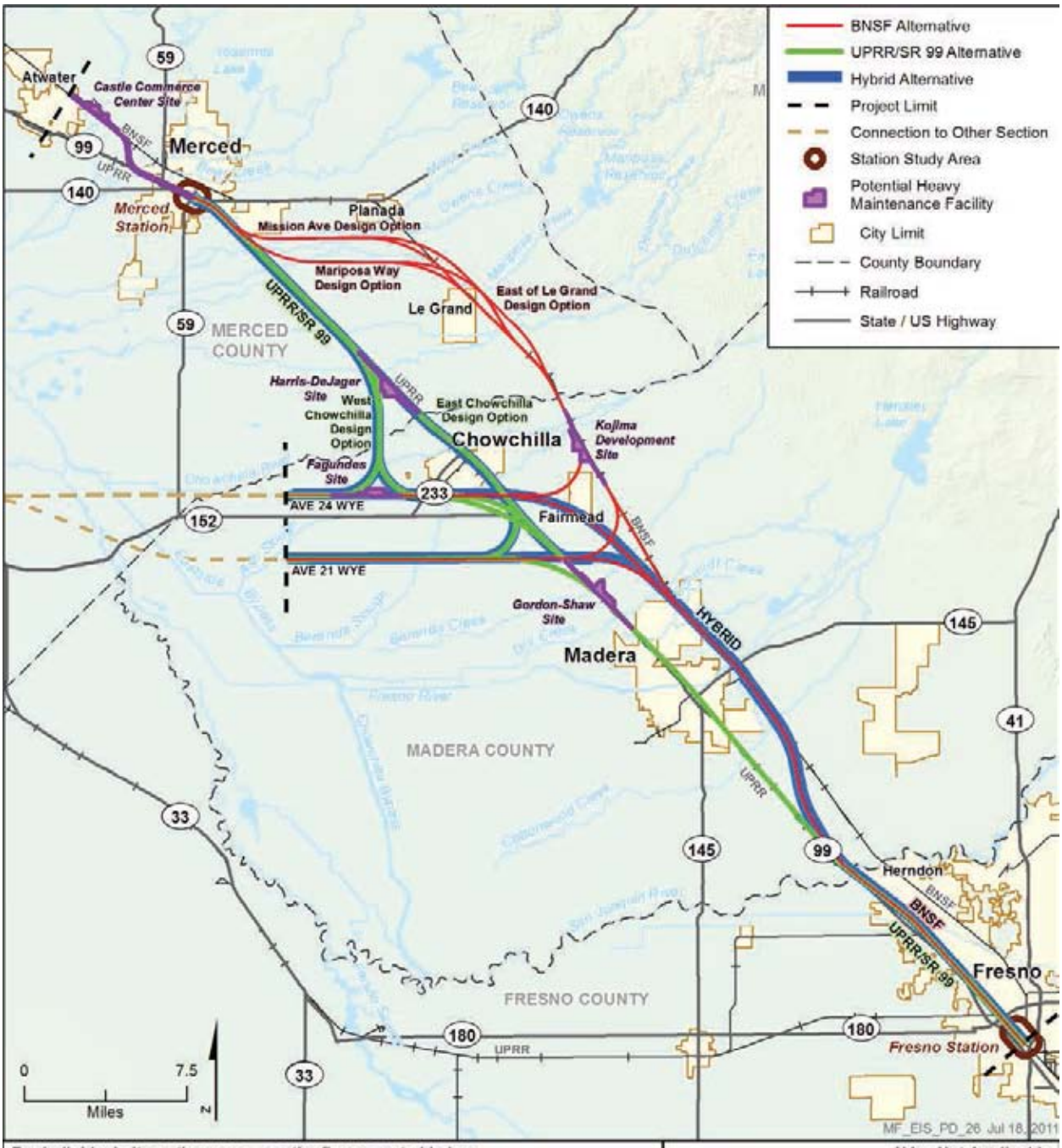
- The Authority plans two phases. Phase 1 will connect San Francisco to the Central Valley and Los Angeles with a mandated travel time of 2 hours and 40 minutes or less. Phase 2 will connect the Central Valley to Sacramento and will extend the system from Los Angeles to San Diego.

- The Merced-Fresno and Fresno-Bakersfield HST Sections are critical Phase 1 links. The Merced-Fresno Section includes an HST station in Merced. The Fresno-Bakersfield Section includes HST stations in Fresno and Bakersfield, with a third potential station near Hanford.

- Project construction in the Central Valley is expected to be completed within 7 years extending from the first phase of construction through operational testing. Compared with other project elements, the HST stations would likely require the longest consistent construction time (approximately 3 to 4 years).

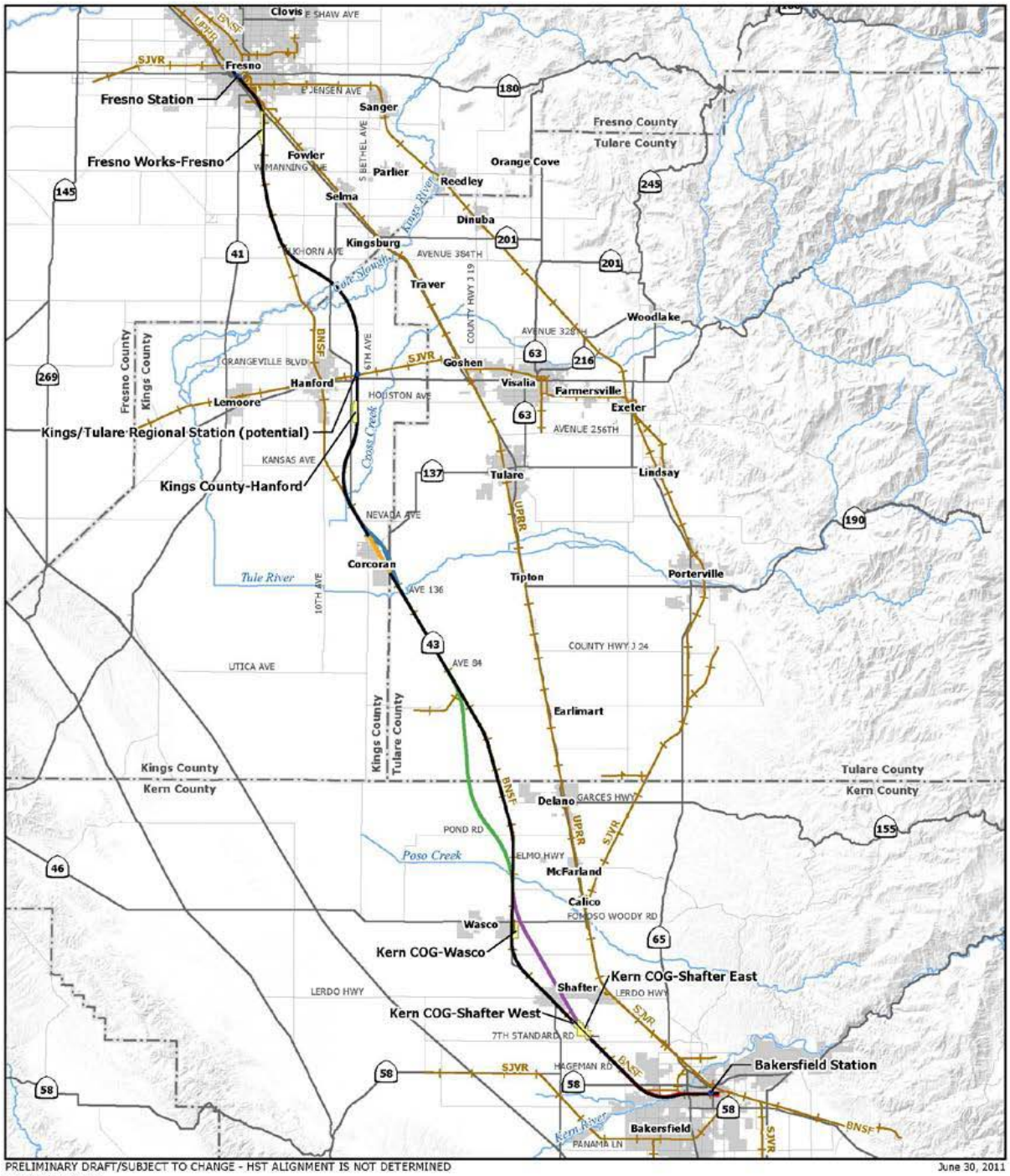
- The Central Valley HST project would commence operation in approximately 10 years with full operation of the entire system in approximately 25 years.

Sacramento
San Francisco Transbay Terminal
Oakland
Millbrae-SFO
Redwood City or Palo Alto
San Jose Diridon
Gilroy
Stockton
Downtown Modesto
Downtown Merced
Fresno
Kings/Tulare Regional Station (Potential Station)
Bakersfield
Palmdale
Sylmar
Burbank
Los Angeles
Norwalk
Anaheim
Industry
Ontario Airport
Riverside
Murrieta
Escondido
University City
San Diego
Pacific Ocean
Legend
Urban Area
Farmland
National Forest
Public Lands
State Parks
Open Space
Water
Rail Alignment
HST Alignments - Phase 1
HST Alignments - Phase 2
Stations
Map based on 2005 Statewide Programmatic EIR/S preferred route, and staff recommendation to Authority Board December 19, 2007
Mapping Sources: US Census 2000; CA Dept. of Conservation, Farmland Mapping and Monitoring Program 2000;
California Resources Agency Legacy Project 2002; CA Dept. of Fish and Game 1999



For individual alternative maps, see the figures noted below. NA = Not Applicable

Wye Connection	UPRR/SR 99 Alternative		BNSF Alternative				Hybrid Alternative
	West Chowchilla Design Option	East Chowchilla Design Option	Mission Ave Design Option		Mariposa Way Design Option		
			Le Grand	East of Le Grand	Le Grand	East of Le Grand	
Ave 24 Wye	2-27a	2-27b	2-44a	2-44b	2-44c	2-44d	2-52a
Ave 21 Wye	NA	2-27c	2-44e	2-44f	2-44g	2-44h	2-52b



PRELIMINARY DRAFT/SUBJECT TO CHANGE - HST ALIGNMENT IS NOT DETERMINED

June 30, 2011

Source: URS, 2011

- BNSF Alternative
- Corcoran Elevated
- Corcoran Bypass
- Allensworth Bypass
- Wasco-Shafter Bypass
- Bakersfield South
- Station location
- Alternative heavy maintenance facility (HMF)
- Stream
- Existing rail line
- Community/Urban area
- County boundary

N

0 5 10 Miles

0 10 20 Kilometers

- The cost of the Merced-Fresno route, considering the various alternatives, ranges between $1.3 and $3.4 billion in 2010 dollars. The total cost of the Fresno-Bakersfield route is estimated at $7.01 billion. This estimate uses the Fresno Mariposa Street Station (construction of the station at Kern Street would be $27 million more). A Heavy Maintenance Facility (HMF), proposed south of Fresno, would cost an estimated $620 million. The total cost of the Merced to Bakersfield sections would therefore be approximately $11 billion, including an HMF at one of 10 alternative sites.

- Although both the Merced-Fresno and Fresno-Bakersfield EIR/EISs evaluate several alignment alternatives north and south of Fresno, there is a single alignment evaluated for Fresno County. This alternative most closely follows the preferred alignment identified in the Statewide Program EIR/EIS.

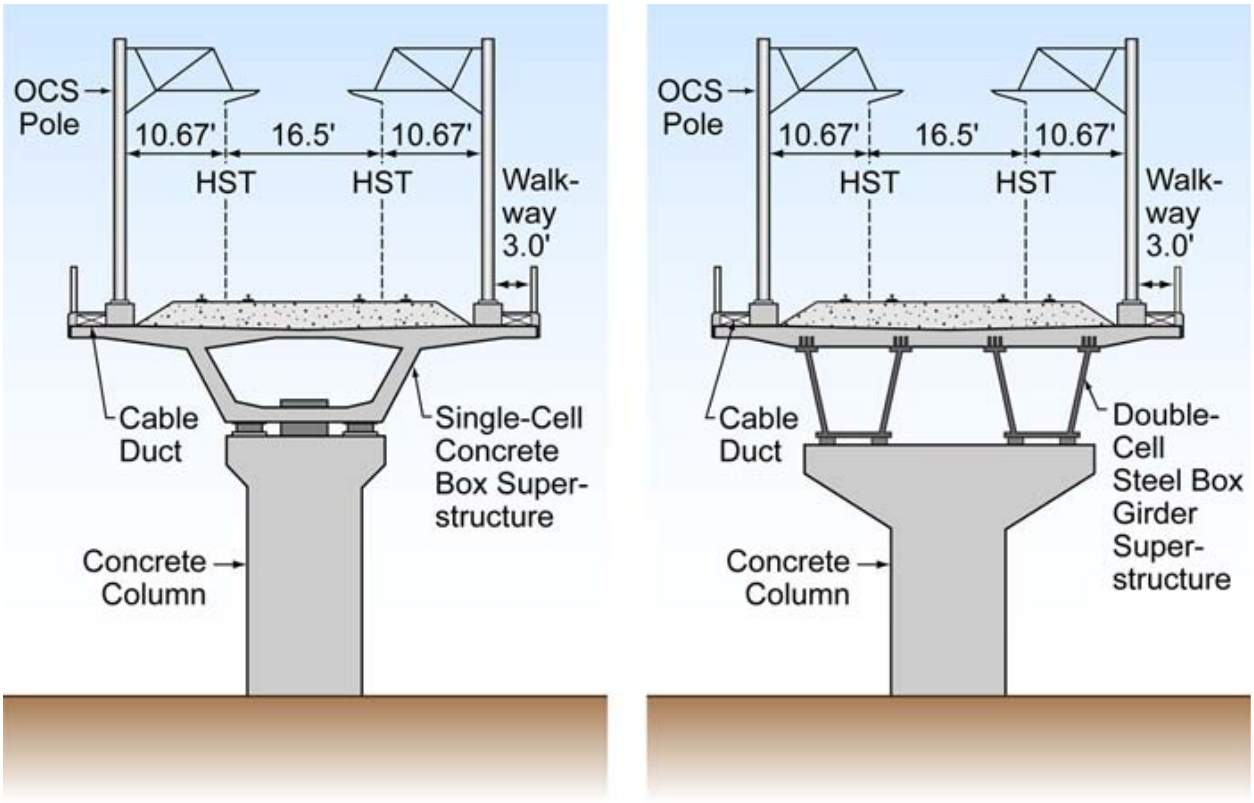
- With passenger fares at 50% of airfare levels, Phase 1 would carry 18.7 million passengers in 2020, growing to 51.3 million in 2026. The Full System in its first year, 2027, would carry 67.5 million passengers, growing to over 98 million in 2035.

- Although the exact vehicle-type has not yet been selected, all of the world's HST systems use electric propulsion with power supplied by an overhead system. A typical train would consist of two trainsets, each approximately 660 feet long and consisting of eight cars. A train of two trainsets would seat up to 1,000 passengers, and be approximately 1,320 feet long with 16 cars.

- In 2035 for the high ridership scenario, the full system would see four trains per hour stop at the Fresno station in each direction at the peak, and six trains run through. At the off-peak, the same number of stops would be made, but the through trains would decrease to three per hour. As trains will run from 6:00 am to midnight, this totals an estimated 142 trains per day, of which 72 would stop and 70 would run through.

- The HST project would reduce daily VMT by 11% in Fresno County, resulting in decreased fuel consumption, decreased congestion, improved travel time, and reduced air emissions. The HST also would reduce the demand for commercial air travel within California.

- Elevated profiles can be used in urban areas where extensive road networks must be maintained. An elevated profile must have a minimum clearance of approximately 16.5 feet over roadways and approximately 26 feet over railroads. Pier supports are typically approximately 10 feet in diameter at the ground.



(a) Concrete Superstructure **(b) Steel Superstructure**

2. THE FRESNO COUNTY HST SUBSECTION DESIGN

- The total length of the Merced to Bakersfield sections is 204 miles, of which 142 miles will be at grade and 62 miles elevated. The total length for the Fresno County subsection is approximately 28 miles, of which 25 miles are at grade and 3 miles are elevated.

- While several vertical alignment options were evaluated, building the HST primarily at grade was determined to be the only practicable construction method for the Fresno subsection.

- Beginning in the north, the HST would be on an elevated structure to cross the San Joaquin River and Herndon Avenue, returning to at-grade south of Herndon and remaining at-grade to the downtown Fresno Station. In this area, Golden State Boulevard would be shifted to the west to for approximately 4.5 miles to accommodate the HST.

- The HST alignment would pass under the planned Veterans Boulevard extension and overcrossing of SR 99.

- At Shaw Avenue, a new overcrossing would be constructed over the HST and UPRR corridors. New roadway connections to Golden State Boulevard from Shaw Avenue would be provided.

- Between Ashlan and Clinton, the HST alignment would be accommodated on existing Caltrans right-of-way by shifting SR 99 approximately 100 feet to the west for approximately 2.3 miles. This shift would require the reconfiguration of the interchange ramps at Ashlan and Clinton Avenues and closure of the existing southbound on- and off-ramps at Dakota, Shields, and Princeton Avenues. In addition, some local roads would be closed or reconfigured.

- South of Clinton, new overcrossings would be constructed at McKinley, Olive, and Belmont to carry traffic over the HST and UPRR corridors. To accommodate the HST alignment, Golden State Boulevard would be shifted to the west between Clinton and Olive and would be closed between Olive and Belmont adjacent to Roeding Park.

- As part of the downtown station design, Tulare Street would become either an overpass or undercrossing of H Street, the HST and UPRR.

- From the Fresno Station, the HST would go underneath SR 41 and continue southeast on the western side of the UPRR until reaching Jensen. The alignment would be below grade in a shallow trench as it travels underneath the Jensen bridge and would then curve to the south and be elevated over Golden State Boulevard and SR 99. Returning to grade the alignment joins the BNSF Railway right-of-way on its western side south of Fresno.

- The HST would continue through rural Fresno County along the BNSF right-of-way. The alignment would again be elevated where it crosses from the western side to the eastern side of the BNSF tracks near Conejo Avenue. The elevated structure would span almost 1 mile reaching a height of 48 feet. The alignment would be at grade with bridges where it crosses Cole Slough and the Kings River into Kings County.

3. THE DOWNTOWN FRESNO HST STATION

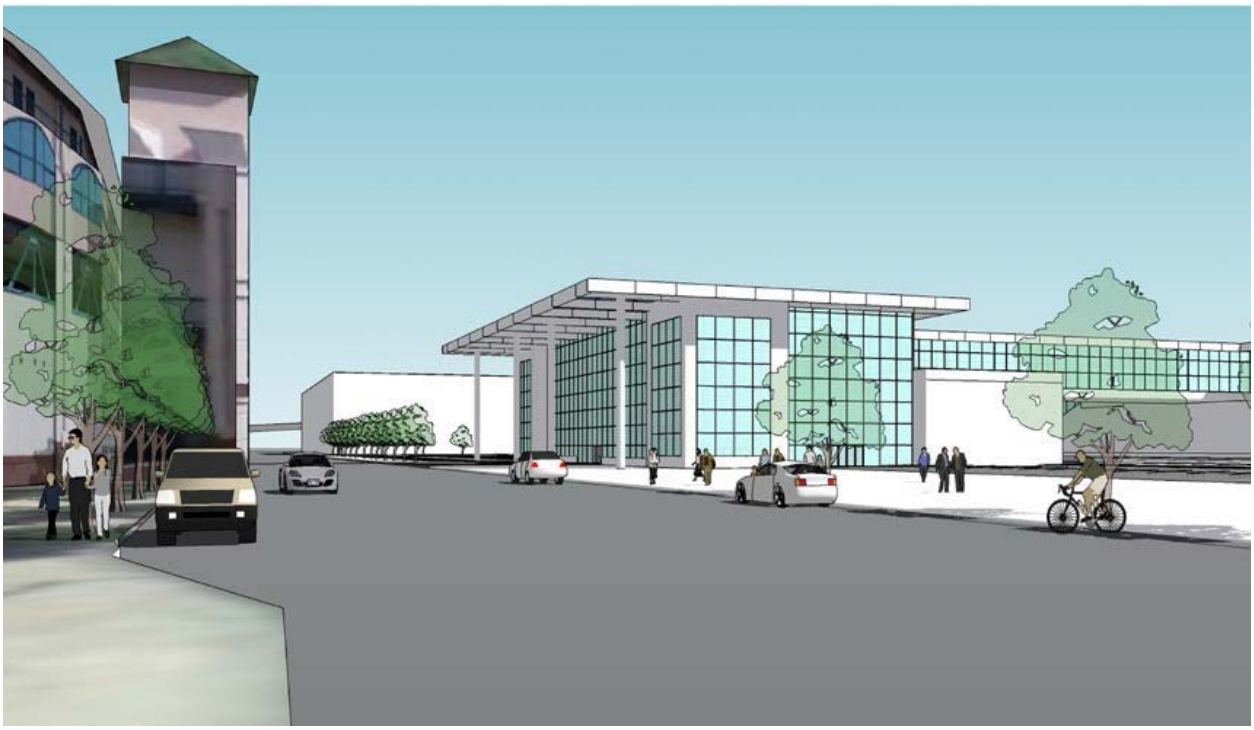
- Two alternative locations are being considered for the downtown Fresno Station – the Mariposa Alternative and the Kern Alternative.

- The Fresno Station–Mariposa Alternative would be centered on Mariposa Street and bordered by Fresno Street on the north, Tulare Street on the south, H Street on the east, and G Street on the west. The station building would be approximately 75,000 square feet, with a maximum height of 64 feet. The station would encroach on the historic Southern Pacific Railroad depot just north of Tulare Street and require relocation of the existing Greyhound bus depot.

- The Fresno Station–Kern Alternative is similarly situated in downtown Fresno and would be centered on Kern Street between Tulare Street and Inyo Street. This station would include the same components as the Fresno Station–Mariposa Alternative, but would not encroach on the Southern Pacific Railroad or require relocation of the Greyhound facilities. It would, however, require removal of the historic Hobbs Parson building which houses the Fresno Fire Department headquarters.

- The HST station would provide opportunities to revitalize downtown Fresno through higher density mixed use development and improved transit connectivity. The project is estimated to bring 8,400 daily passengers to Fresno and, when combined with the projected growth for the valley, would provide a catalyst to concentrate the investment created by population growth at the urban centers that provide interregional connectivity with other metropolitan centers.

- The Fresno HST station would occupy several blocks. The station would include the station plazas, drop-offs, multimodal transit center, and parking structures. The station would also include lengths of bypass tracks to accommodate local and express service. Four tracks would pass through the station, with two express tracks separated from those that stop at the station. The wider footprint for the four-track section extends for approximately 3,000 feet on either side of the station, or a total distance of 6,000 feet.



- Parking demand at the Fresno Station is estimated at 5,900 parking spaces in 2020 and 7,400 spaces in 2035. Based on the amount of excess public parking within 1 mile of the station, it is estimated that the 2035 parking demand can be met with a total of 5,000 parking spaces provided in four new parking structures built adjacent to the station by 2035.

4. HEAVY MAINTENANCE FACILITY

- Either the Merced-Fresno or Fresno-Bakersfield Section may include a centrally located Heavy Maintenance Facility (HMF). The HMF would require approximately 150 acres. About

1,200 to 1,500 employees could be accommodated during peak shifts with parking for 1,200 vehicles. The EIR/EISs evaluate 10 potential HMF sites.

- For the Merced-Fresno section, five alternative HMF locations are analyzed including a north of Merced location (Castle Commerce Center) and four locations in the Chowchilla area, depending upon which alternative route is selected.

- For the Fresno-Bakersfield section, five HMF site alternatives are evaluated: The Fresno Works–Fresno HMF Site – Located within the southern limits of the city and county of Fresno next to the BNSF Railway right-of-way between SR 99 and Adams Avenue, as well as HMF alternatives in Kings County near Hanford; the Wasco site in Kern County; and the Shafter East and Shafter West HMF Sites in Kern County.

5. ENVIRONMENTAL CONSEQUENCES

- HST Right-of-Way – would typically vary between 100 and 120 feet for rural areas and as little as 60 feet in constrained areas such as downtown Fresno.

- Some of the proposed mitigation would occur on property the Authority would not acquire. The Authority intends to work with the City of Fresno prior to the Final EIR/EIS to confirm that all traffic mitigation is acceptable to them. Another "off-site" mitigation is the purchase of agricultural easements to mitigate for the project footprint's conversion of farmland to HST uses.

Traffic

- The Fresno HST station would generate 4,370 daily trips in 2035 with approximately 652 trips occurring in both the am and pm peak hours – roughly equivalent to a small commercial strip center. The HMF would generate 3,000 daily trips with approximately 300 trips occurring during both the AM and PM peak hours.

- With the introduction of HST service, the Amtrak San Joaquin rail service may be adjusted to function as a feeder service to the HST. AMTRAC service to Hanford would be terminated, with local Hanford-Fresno trips shifted to the HST.

- The Union Pacific Rail Road (UPRR) operates 25 to 30 freight trains per day through Fresno and the Burlington Northern-Santa Fe (BNSF) Railway operates 35 to 40 freight trains per day. Because the HST does not encroach on freight rail corridors, freight operation would continue on the UPRR and BNSF.

- Total vehicle miles traveled would be reduced, overall, with the HST System in operation. The reduction of ADT on regional roadways is considered beneficial to the project. The EIR/EIS estimates that VMT in 2035 with the HST will be reduced from 27.3 million miles to 24.4 million miles in the four-county region, an 11% reduction.

- The majority of the track would be at-grade, crossing local roads and highways where a separated grade roadway crossing would be constructed, or some local roads and streets would be diverted or closed.

- **Segments.** Under 2035 conditions, two roadway segments, Tulare Street between Broadway Street and Van Ness and Divisadero Street would experience a change in LOS from D to E or F. For these two streets, the impact is considered significant under CEQA.

- **Intersections.** For 2035 conditions, 30 intersections would be impacted by the project, 12 in the AM period, and 27 in the PM period. These intersections would either degrade to LOS E or F. For these intersections, the impact is considered significant under CEQA due to the increase in delay caused by station related traffic.

- Fresno has a large amount of excess public parking within 1 mile of the Fresno station sites. Based on discussions with the City, projected 2035 parking demand would be met through a combination of new parking structures near the station plus reliance on existing public

spaces. This takes advantage of the substantial public parking available in the vicinity of the station sites.

- The following HST Aerial Crossings, Road Modifications, New Grade Separations, and Road Closures would occur within the Fresno County portion of the HST system:

HST Aerial Crossings

1. San Joaquin River
2. Herndon Avenue
3. State Route 41 - HST would travel under the SR 41 structures
4. Golden State Boulevard - HST would pass over South Golden State Blvd.
5. North Avenue - HST would pass over on an aerial structure.
6. Cedar Avenue - HST would pass over on an aerial structure.
7. State Route 99 - HST would pass over on an aerial structure.
8. Muscat Avenue - HST would pass over on an aerial structure.
9. Peach Avenue - HST would be elevated on an aerial structure.

Road Modifications

1. Golden State Blvd shift road (~4.5 miles) between n/o Herndon and s/o Shaw
2. Northbound SR 99 onramp 1 lane HST elevated Shift freeway ramp
3. SR 99 shift freeway to the west 100 feet (~2.3 miles) between Clinton and Ashlan
4. Golden State Blvd adjacent to Roeding Park - Close road between Olive and Belmont
5. Jenson Bypass - HST would pass under existing Jensen Ave bridge in a shallow trench.

New Grade Separations with HST

1. Veterans Blvd
2. Shaw Ave
3. Ashlan Ave (replace overcrossing)
4. Clinton Ave (replace overcrossing)
5. McKinley Ave
6. Olive Ave
7. Belmont
8. Stanislaus (modify overcrossing)

9. Tuolumne St (modify overcrossing)
10. Fresno St (modify undercrossing)
11. Tulare St (new overcrossing or undercrossing)
12. Ventura St
13. Church Avenue - A separate pedestrian bridge would also be required.
14. American Avenue
15. Floral Avenue
16. Lincoln Avenue
17. Adams Avenue
18. South Avenue
19. Manning Avenue
20. Nebraska Avenue
21. Chestnut Avenue/Mountain View (combined overpass solution)
22. Clovis Avenue
23. Elkhorn Avenue
24. Fowler Avenue

Road Closures at HST Right-of-way

1. Divisadero St
2. Kern St
3. Mono St
4. California Street
5. Cherry Avenue
6. Railroad Avenue - between California Ave and Orange Ave
7. Van Ness Avenue
8. Florence Avenue
9. Sarah Avenue
10. Belgravia Avenue
11. East Avenue Fresno
12. Orange Avenue
13. Malaga Avenue
14. Jefferson Avenue

15. Morton Avenue
16. Sumner Avenue
17. Dinuba Avenue
18. Rose Avenue
19. Kamm Avenue
20. Willow Avenue
21. Minnewawa Avenue

Air Quality

- **Construction:** Construction of the HST has the potential to cause significant but temporary air quality impacts. Implementation of mitigation measures during construction phases could reduce PM10 and PM2.5 emissions by reducing fugitive dust and exhaust from construction and on-road vehicles. Mitigation measures could also reduce GHG emissions by controlling exhaust from construction and on-road vehicles. Even with mitigation, impacts related to construction would be significant given the size of the project and construction effort.

- **Operation:** Operation of the HST alternatives would generally reduce regional criteria and GHG pollutants and would have a beneficial impact on air quality. While operation could cause localized increases in pollutants from equipment operation, as well as from localized CO increases at intersections near the facility, associated impacts would be less than significant.

- Common benefits to regional air quality would come from a reduction of VMT and airplane emissions. Additionally, the project would have the common benefit of meeting GHG reduction measures identified in the AB 32 scoping plan. At the local level negligible localized increases of CO and particulates (PM10 and PM2.5) emissions would not cause violations of NAAQS, but the operation of the HMF (at some of the potential locations) could increase sensitive receptor exposure to air pollutants.

Noise and Vibration

- The HST at grade and at 220 mph, generates noise levels of approximately 100 dB at 100 feet from the centerline. This compares to a freight train (with no horn) at 50 mph of 100 dB at 75 feet. The HST at grade under normal operations is slightly noisier but roughly equivalent to a typical freight train.

- Operation of the HST would increase noise levels above the ambient noise environment by as much as 22 dBA. The analysis shows potential for moderate to severe noise impacts for many receivers along the alignment.

- Some land use sensitive receivers within 175 feet of the rail centerline would be adversely affected by vibration impacts during operation of the HST, considered significant under CEQA.

HST Total Number of Noise Impacts before Mitigation – Merced to Bakersfield

Moderate:	11,194 residences, 44 churches, 32 schools, 2 hospitals, 9 parks
Severe:	5,471 residences, 27 churches, 10 schools, 1 hospitals, 4 parks

- Within Fresno, moderate noise impacts would occur to 171 residences, while severe noise impacts would occur to 7 churches, 2 parks, and 20 residences.

- These estimates suggest that the potential for construction noise impact will be minimal for commercial and industrial land use, with impacts screening distances of 79 feet and 45 feet, respectively. For residential land use, the potential for temporary construction noise impacts would be limited to locations within approximately 141 feet of the alignment. These impacts are temporary during construction.

- South of Fresno, the HST follows the BNSF right-of-way for approximately 12 miles through primarily agricultural lands. The measured ambient noise levels ranged from 64 to 77 dBA which are what would be expected in areas near freight and passenger train operations.

- Only 1 sensitive receptor (residence) in Fresno County would experience substantial vibration effects.

- Various options exist to address the potentially severe noise effects from HSTs, including: Install sound barriers - can achieve between 5 and 15 dB of noise reduction; install building sound insulation in residences and institutional buildings to improve the outdoor-to-indoor noise reduction (5 to 7 dB noise reduction); and acquire easements on properties severely affected by noise.

Energy and Utilities

- Constructing the Fresno subsection of HST System could result in scheduled and accidental interruptions of utility services and it would generate construction and demolition (C&D) material. Locating existing utilities prior to the start of construction would reduce the risk of accidental service interruptions. Where feasible, C&D material would be recycled.

- Utilities within the permanent project footprint would be either relocated outside the restricted access area of the HST right-of-way, or they would be modified (i.e., encased in a pipe sturdy enough to withstand the weight of HST System elements) to avoid the conflict.

High-Risk Utilities

Design Option	Electrical Transmission Lines	Natural Gas Distribution Lines	Petroleum and Fuel Pipelines
Fresno Subsection	23	22	19

Low-Risk Utilities

Design Option	Communications Facilities	Irrigation Canals	Water Lines	Sewer	Stormwater Pipelines
Fresno Subsection	0	13	73	68	87

- The Authority would work with PG&E, SCE, and other utilities during final engineering design and construction to relocate transmission lines or protect them in place. The Authority would work with pipeline owners to place affected lines underground in a protective casing so that future maintenance of the line could be accomplished outside of the HST right-of-way.

- The HST System would increase projected electricity demand statewide by approximately 0.96% in 2030. Based on the assumption that this demand would be evenly spread throughout the system, the Fresno subsection would require approximately 78 MW of additional peak capacity. Although the HST System would result in an increase in electricity demand, it would reduce the energy demands from automobile and airplane travel, resulting in an overall beneficial effect on statewide energy use.

- Achieving of the Authority's policy goal of using up to 100% renewable energy sources for the HST system would result in a total estimated reduction in fossil fuel energy resources for the HST System of up to12.7 million barrels of oil annually by 2030.

Biology

- No special status plants are known to exist in the Fresno County portion of the alignment, although ground disturbance will occur over lands with the potential for these species to occur.

- The following special status wildlife species are known to occur, or could occur, in the Fresno County portion of the BNSF alternative study area: Elderberry long-horn beetle, burrowing owl, red-tailed hawk.

- Mitigation measures identify avoidance, minimization, and compensation measures to minimize potential impacts and effects on biological resources by the HST alternative alignments, station alternatives, and HMF alternatives. Many of these mitigation measures have multiple benefits that avoid, protect, or compensate for the impacts and effects on various biological resources.

Hydrology and Water Quality

- Construction of the HST, the downtown station, and the HMF would result in temporary impacts on existing drainage, irrigation distribution systems, and water quality. Stream channels would temporarily be disturbed at several crossings.

- The project design would reduce impacts on water resources. All construction and operation impacts related to hydrology and water quality can be mitigated to less than significant.

Geology and Soils

- Risks can be addressed with conventional foundation design methods used to reduce geologic risks. These engineering design methods are included in the *Standard Engineering and Design Measures Incorporated as Part of the HST Project*. Collectively, these design measures would reduce effects on public health from geologic hazards to a less than significant impact under CEQA.

Hazardous Materials

- Construction of the proposed project would result in a temporary increase in the transportation, use, and storage of hazardous materials. Cleanup of Potential Environmental Concern (PEC) sites and demolition of existing structures, if needed, would result in a temporary increase in waste disposal. The project could also encounter unknown hazardous materials during construction. Routine transport, use, storage, and disposal of hazardous materials are governed by numerous laws, regulations, and ordinances.

- The study area in the City of Fresno has 21 PEC sites with known contamination in various stages of investigation or remediation; 7 of the sites are considered high-risk, and 11 of the sites are considered medium-risk. Most sites involve storing, dispensing, or using petroleum products, agricultural chemicals, or other hazardous materials.

- Three PEC sites occur within the footprint of the proposed Fresno HMF site. One PEC site, the Cedar Avenue Recycling and Transfer Station, appears on the Cortese list pursuant to

Government Code Section 65962.5. If necessary, further investigation of the PEC sites, as described above, would be conducted before property acquisition.

Socioeconomics

- Property and sales tax revenues are expected to increase as a result of the project. Short-term reductions in these revenues caused by land acquisition are expected to be more than offset by long-term increases in the regional property and sales tax bases.

- The HST station in Fresno would have the potential to encourage redevelopment, attract new businesses, and revitalize the downtown, resulting primarily in beneficial social impacts in these areas. Overall, the HST would result in increased employment opportunities and overall regional economic benefits that would not occur without the project.

- Construction of the project would provide economic benefits, including gains in sales tax revenues and job creation as a result of construction. The new jobs would be created both directly in the construction sector as well as across other related sectors that supply materials, equipment, and services for the project and its workers. It is estimated that the BNSF Alternative would generate about $14 million in sales tax revenues for the region over the construction period, including $7 million for Fresno County.

- Construction job creation would peak during the years of heaviest project construction (2014–2017), and during those years would represent the need for around 3,900 workers annually (with approximately 1,300 direct jobs in construction and 2,600 indirect and induced jobs in other sectors).

- The existing regional labor force would be sufficient to fill the demand for construction jobs, as well as the resulting indirect and induced jobs. As with any large construction project, some influx of skilled construction workers would be expected.

- Approximately 47,500 new jobs would be created by 2035 in the region as a result of the HST System, including approximately 2,000 direct jobs to operate and maintain the project and additional jobs created by improved connectivity and growth in the overall regional

economy. The new jobs created are estimated to be a 3.2% increase in employment that would occur without the HST.

- The estimated total short-term reduction in agricultural production along the BNSF Alternative represents 0.5%, or less, of the total value of agricultural production in each of the four counties, or a total reduction of approximately $15 million and 160 employees for the region as a whole. Impacts would be highest in Kings County ($8.7 million and 53 employees). The estimated reduction for Fresno county is $1.6 million with 34 employees affected.

Displacement of Homes and Businesses

- In Fresno County, the HST would not displace any homes but would displace 37 businesses (35 in the Edison District and 1 each in the Central and Roosevelt districts), including a café, a barber shop, a gas station, a furniture store, and a mix of light-industrial and warehousing uses. The affected area has a high number of commercial vacancies, thus offering opportunities for nearby relocation and avoiding disruption of the business community.

- The HST would affect the homeless population living in the vicinity of SR 41 and Golden State Boulevard. The HST would also displace the Fresno Rescue Mission, a facility that provides meals, programs, and shelter for the homeless. Because the displacement of the Fresno Rescue Mission would result in the loss an important community resource, the effect would be significant under CEQA.

- South of Fresno, the HST would be located near five small, unincorporated communities: Malaga, Oleander, Bowles, Monmouth, and Conejo. The alignment would pass generally within 500 feet to ¾ mile of these communities. The alignment would pass at-grade along the western border of Monmouth within 250 feet of homes and 500 feet of the community's only church. Realignment of East Nebraska Avenue would displace one home and disrupt one business. In Conejo, the right-of-way would pass within 200 feet of many homes and would be elevated 45 feet to cross the existing BNSF railroad, resulting in substantial noise and visual impacts in the community.

- The Fresno Mariposa Station Alternative would be centered on Mariposa Street, adjacent to the HST tracks west of Chukchansi Park. The station would encroach on the historic Southern Pacific depot and require relocation of the Greyhound bus depot. Other commercial-industrial businesses in the area would be relocated, but the station has the potential to improve neighborhood aesthetics and provide an active transportation hub and associated service businesses.

- The Fresno Kern Station Alternative would be similar to the Mariposa Alternative, except that this alternative would not encroach on the Southern Pacific depot and would not require relocation of the Greyhound bus depot. It would, however, remove the historic Hobbs Parsons Building (Fresno Fire Department headquarters). The impacts on existing community resources would have similarly negligible effects.

- In total, an estimated 374 residential units and a corresponding 1,190 residents would be relocated along the entire BNSF Alternative. The majority of these 374 displacements are in the Bakersfield area, where 239 households would be relocated. Fresno County would have 20 units displaced with 63 residents, all in rural areas. The City of Fresno would experience no residential displacements.

- For the Merced–Fresno section, there would be 311 to 991 residential units displaced depending on the alternative alignment, with 991 t0 1,093 persons displaced. An estimated 311 to 323 businesses would be displaced with 7,876 to 8,214 employees.

- The Fresno station alternatives (Fresno Mariposa, Fresno Kern) would not displace any residential units.

- The Fresno Heavy Maintenance Facility would displace 31 residential units. There is sufficient vacant replacement housing in the Fresno metro area. The Fresno HMF would relocate 9 commercial and industrial businesses, with an estimated 70 employees in unincorporated Fresno County. Suitable alternative sites for these displaced commercial and industrial businesses is available.

Commercial and Industrial Businesses

- An estimated 380 businesses would be relocated along the entire BNSF Alternative. The City of Fresno would experience 37 business relocations with 775 employees while unincorporated Fresno County would have 24 businesses with 337 employees displaced (Bakersfield businesses account for 282 of the 380 total businesses).

- Within the City of Fresno and unincorporated Fresno County, commercial, retail, and office space vacancies would be more than sufficient to meet the needs for the displaced businesses. An exception is the automotive maintenance and repair sector which requires specialized facilities. The relocation plan would need to take into account the additional efforts necessary for automotive maintenance and repair businesses during the acquisition and relocation process.

- The Fresno Mariposa Station would require relocation of 5 commercial and industrial businesses with an estimated 47 employees. The Fresno Kern Station would require relocation of 3 commercial and industrial businesses, with an estimated 68 employees. Sufficient numbers of potential replacement sites are available for the anticipated commercial and industrial business relocations associated with the Fresno station alternatives in all but the automotive sector.

- The Uniform Act, a federally mandated program, as well as the California Relocation Assistance Act would apply to all acquisitions of real property or displacements of persons. The Acts require just compensation for property, provide benefits to displaced individuals to assist them financially and with advisory services related to relocating their residence or business operation.

Agricultural Lands

- The BNSF alternative will convert 2,211 acres of important farmland to HST uses, of which 1,313 acres are in the Williamson Act. Kings County would have 733 acres of converted farmland, while Fresno County has 555 acres of which 255 acres are in the Williamson Act. An additional 150 acres of prime farmland is likely to be converted for the HMF.

- The project will purchase agricultural conservation easements at a ratio of no less than 1:1 to preserve Important Farmlands in the amount commensurate with the quantity and quality of converted farmlands.

Parks

- **Camp Pashayan.** Located in the San Joaquin River bottom east of SR 99, Camp Pashayan is state owned and managed by the Department of Fish and Game. In order to construct an elevated structure across the property, about 0.6 acres of Camp Pashayan would be purchased for the HST system. Construction areas would be replanted, but the visual changes would remain until the vegetation matures, which could require several years to a decade, depending on vegetation type. The HST would be elevated approximately 60 feet above the park and the alignment would be designed to lie as close to the UPRR corridor as possible.

- **Roeding Park.** Construction would occur adjacent to the eastern boundary of Roeding Park, but no use of the park for construction is anticipated. Golden State Boulevard would be closed between Olive and Belmont and the HST would occupy the road alignment at grade. Along the southern portion of Roeding Park, the tracks would descend below ground to cross under SR 180 farther south. No effects on Fresno Chaffee Zoo or Rotary Storyland and Playland, both of which are located inside Roeding Park approximately 1,000 feet from the HST alignment, are anticipated.

  Operation of the HST would result in severe noise impacts along the eastern boundary of Roeding Park. Noise levels would increase by the following:

  - 20 feet from the edge of the park: an increase from 60 dB to 72 dBA (12dB)
  - 250 feet from the edge of the park: an increase from 55 dB to 69 dBA (14 dB)

  A 2,800 foot long sound barrier 14 feet tall would reduce the noise level to within 1 dB of acceptable. Discussions with the City of Fresno are under way to determine to what extent the noise would affect park uses.

- **Chukchansi Park.** Construction of the HST would not require temporary use of Chukchansi Park property and would not create any direct impacts. Chukchansi Park is located approximately 530 feet east of the BNSF right-of-way centerline, 70 feet east of station construction, and adjacent to the study area for a grade separation of Tulare Street required for the HST. Chukchansi Park would experience noise and visual change as well as possible access restrictions from Tulare Street.

Aesthetics

- The HST would reduce the existing visual character or quality of the City of Fresno. Mitigation measures such as visual screening would reduce project effects on the visual character of the city of Fresno to less than significant under CEQA. However, views would continue to be affected because many impacts of the HST would result from elevated guideways or roadway overcrossings whose bulk and mass cannot be reduced.

- In the rural valley, some features of the HST would be visually prominent and out of character with the existing rural setting. The resulting strong decline in visual quality as experienced by rural residents would be a significant impact under CEQA.

- Although the HMF could substantially degrade the existing visual character or quality of the site and its surroundings, these impacts could be mitigated so the effect would be less than significant under CEQA.

Historical Resources

- No archaeological sites were identified within Fresno County and none of the proposed alternatives have the potential to affect archaeological resources.

- Surveys identified 52 historic architectural resources within downtown Fresno. The HST would cause adverse effects to 26 of these historical resources, including direct adverse effects through demolition and property takes, as well as indirect adverse visual effects.

- The Fresno Mariposa Station Alternative would cause substantial adverse changes to one CEQA historical resource through demolition (the Del Monte building on Tulare Street).

- The Fresno Kern Station Alternative would require removal of two historic structures – The Hobbs Parsons Produce Building (Fresno Fire Department Headquarters), and the Del Monte building on Tulare Street.

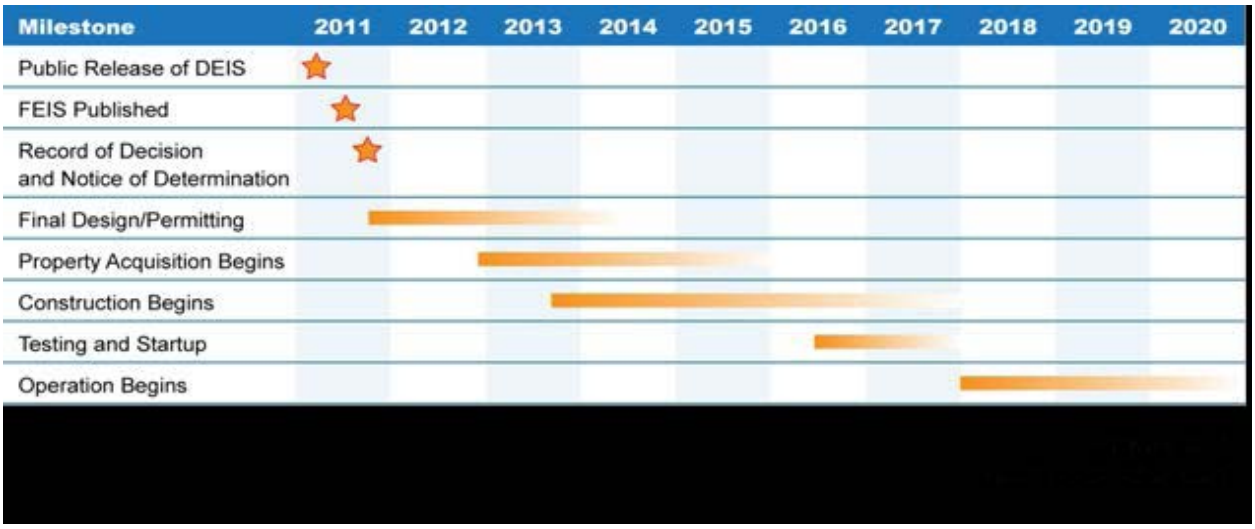
- The construction of a Tulare Street overcrossing would compromise the historical design and integrity of the Southern Pacific Depot, the Bank of America Building at Tulare and Fulton, and the Hobbs Parsons Produce Building (with the Mariposa Station alternative). The HST also includes an option for an undercrossing at Tulare Street and this option would have no adverse effect on these historic properties.

6. REVIEW AND DECISION MAKING

- The Draft EIR/EIS will be circulated for a 60-day comment period, ending on October 13, 2011. The Draft EIR/EIS has been circulated to local jurisdictions, state and federal agencies, interested individuals, and the public. The document also is available at the Authority offices, public libraries in the study area, and on the Authority's website.

- After considering public and agency comments, the Authority and FRA will identify a preferred alignment alternative, site for each station, and a preferred HMF facility alternative from among the HMF alternatives. The Authority and FRA will prepare a Fresno to Bakersfield Section Final EIR/EIS that will include responses to comments and a description of the preferred alternative and proposed mitigation.

- After completion of the environmental process, the Authority would complete final design, obtain construction permits, and acquire property prior to construction, as shown below.


Milestone
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Public Release of DEIS
FEIS Published
Record of Decision
and Notice of Determination
Final Design/Permitting
Property Acquisition Begins
Construction Begins
Testing and Startup
Operation Begins